ARTS and CRAFTS IN THE MIDDLE AGES

JULIA deWOLF ADDISON

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WORKS OF

Julia de Wolf Addison

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Arts and Crafts in the Middle Ages

A Description of Mediaeval Workmanship in Several of the Departments of Applied Art, Together with Some Account of Special Artisans in the Early Renaissance

By JULIA DE WOLF ADDISON

Author of "The Art of the Pitti Palace," "The Art of the National Gallery," "Classic Myths in Art," etc.

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INTRODUCTION

The very general and keen interest in the revival of arts and crafts in America is a sign full of promise and pleasure to those who are working among the so-called minor arts. One reads at every turn how greatly Ruskin and Morris have influenced handicraft: how much these men and their co-workers have modified the appearance of our streets and houses, our materials, textiles, utensils, and all other useful things in which it is possible to shock or to please the æsthetic taste, without otherwise affecting the value of these articles for their destined purposes.

In this connection it is interesting to look into the past, particularly to those centuries known as the Middle Ages, in which the handicrafts flourished in special perfection, and to see for ourselves how these crafts were pursued, and exactly what these arts really were. Many people talk learnedly of the delightful revival of the arts and crafts without having a very definite idea of the original processes which are being restored to popular favour. William Morris himself, although a great modern spirit, and reformer, felt the

necessity of a basis of historic knowledge in all workers. "I do not think," he says, "that any man but one of the highest genius could do anything in these days without much study of ancient art, and even he would be much hindered if he lacked it." It is but turning to the original sources, then, to examine the progress of mediæval artistic crafts, and those sources are usually to be found preserved for our edification in enormous volumes of plates, inaccessible to most readers, and seldom with the kind of information which the average person would enjoy. There are very few books dealing with the arts and crafts of the olden time, which are adapted to inform those who have no intention of practising such arts, and yet who wish to understand and appreciate the examples which they see in numerous museums or exhibitions, and in travelling abroad. There are many of the arts and crafts which come under the daily observation of the tourist, which make no impression upon him and have no message for him, simply because he has never considered the subject of their origin and construction. After one has once studied the subject of historic carving, metal work, embroidery, tapestry, or illumination, one can never fail to look upon these things with intelligent interest and vastly increased pleasure.

Until the middle of the nineteenth century art had been regarded as a luxury for the rich dilettante, — the people heard little of it, and thought less. The utensils and furniture of the middle class were fashioned

only with a view to utility; there was a popular belief that beautiful things were expensive, and the thrifty housekeeper who had no money to put into bric-à-brac never thought of such things as an artistic lamp shade or a well-coloured sofa cushion. Decorative art is well defined by Mr. Russell Sturgis: "Fine art applied to the making beautiful or interesting that which is made for utilitarian purposes."

Many people have an impression that the more ornate an article is, the more work has been lavished upon it. There never was a more erroneous idea. The diligent polish in order to secure nice plain surfaces, or the neat fitting of parts together, is infinitely more difficult than adding a florid casting to conceal clumsy workmanship. Of course certain forms of elaboration involve great pains and labour; but the mere fact that a piece of work is decorated does not show that it has cost any more in time and execution than if it were plain, — frequently many hours have been saved by the device of covering up defects with cheap ornament. How often one finds that a simple chair with a plain back costs more than one which is apparently elaborately carved! The reason is, that the plain one had to be made out of a decent piece of wood, while the ornate one was turned out of a poor piece, and then stamped with a pattern in order to attract the attention from the inferior material of which it was composed. The softer and poorer the wood, the deeper it was possible to stamp it at a single blow. The same principle applies to

much work in metal. Flimsy bits of silverware stamped with cheap designs of flowers or fruits are attached to surfaces badly finished, while the work involved in making such a piece of plate with a plain surface would increase its cost three or four times.

A craft may easily be practised without art, and still serve its purpose; the alliance of the two is a means of giving pleasure as well as serving utility. But it is a mistake to suppose that because a design is artistic, its technical rendering is any the less important. Frequently curious articles are palmed off on us, and designated as "Arts and Crafts" ornaments, in which neither art nor craft plays its full share. Art does not consist only in original, unusual, or unfamiliar designs; craft does not mean hammering silver so that the hammer marks shall show; the best art is that which produces designs of grace and appropriateness, whether they are strikingly new or not, and the best craftsman is so skilful that he is able to go beyond the hammer marks, so to speak, and to produce with the hammer a surface as smooth as, and far more perfect than, that produced by an emery and burnisher. Some people think that "Arts and Crafts" means a combination which allows of poor work being concealed under a mask of æsthetic effect. Labour should not go forth blindly without art, and art should not proceed simply for the attainment of beauty without utility, — in other words, there should be an alliance between labour and art.

One principle for which craftsmen should stand is

a respect for their own tools: a frank recognition of the methods and implements employed in constructing any article. If the article in question is a chair, and is really put together by means of sockets and pegs, let these constructive necessities appear, and do not try to disguise the means by which the result is to be attained. Make the requisite feature a beauty instead of a disgrace.

It is amusing to see a New England farmer build a fence. He begins with good cedar posts, — fine, thick, solid logs, which are at least genuine, and handsome so far as a cedar post is capable of being handsome. You think, " Ah, that will be a good unobjectionable fence." But, behold, as soon as the posts are in position, he carefully lays a flat plank vertically in front of each, so that the passer-by may fancy that he has performed the feat of making a fence of flat laths, thus going out of his way to conceal the one positive and good-looking feature in his fence. He seems to have some furtive dread of admitting that he has used the real article!

A bolt is to be affixed to a modern door. Instead of being applied with a plate of iron or brass, in itself a decorative feature on a blank space like that of the surface of a door, the carpenter cuts a piece of wood out of the edge of the door, sinks the bolt out of sight, so that nothing shall appear to view but a tiny meaningless brass handle, and considers that he has performed a very neat job. Compare this method with that of a mediæval locksmith, and the result with his great iron

bolt, and if you can not appreciate the difference, both in principle and result, I should recommend a course of historic art study until you are convinced. On the other hand, it is not necessary to carry your artistry so far that you build a fence of nothing but cedar logs touching one another, or that you cover your entire door with a meander of wrought iron which culminates in a small bolt. Enthusiastic followers of the Arts and Crafts movement often go to morbid extremes. *Recognition* of material and method does not connote a *display* of method and material out of proportion to the demands of the article to be constructed. As in other forms of culture, balance and sanity are necessary, in order to produce a satisfactory result.

But when a craftsman is possessed of an æsthetic instinct and faculty, he merits the congratulations offered to the students of Birmingham by William Morris, when he told them that they were among the happiest people in all civilization — " persons whose necessary daily work is inseparable from their greatest pleasure."

A mediæval artist was usually a craftsman as well. He was not content with furnishing designs alone, and then handing them over to men whose hands were trained to their execution, but he took his own designs and carried them out. Thus, the designer adapted his drawing to the demands of his material and the craftsman was necessarily in sympathy with the design since it was his own. The result was a harmony of intention and execution which is often lacking when two men of

differing tastes produce one object. Lübke sums up the talents of a mediæval artist as follows: "A painter could produce panels with coats of arms for the military men of noble birth, and devotional panels with an image of a saint or a conventionalized scene from Scripture for that noble's wife. With the same brush and on a larger panel he could produce a larger sacred picture for the convent round the corner, and with finer pencil and more delicate touch he could paint the vellum leaves of a missal;" and so on. If an artistic earthenware platter was to be made, the painter turned to his potter's wheel and to his kiln. If a filigree coronet was wanted, he took up his tools for metal and jewelry work.

Redgrave lays down an excellent maxim for general guidance to designers in arts other than legitimate picture making. He says: "The picture must be independent of the material, the thought alone should govern it; whereas in decoration the material must be one of the suggestors of the thought, its use must govern the design." This shows the difference between decoration and pictorial art.

One hears a great deal of the "conventional" in modern art talk. Just what this means, few people who have the word in their vocabularies really know. As Professor Moore defined it once, it does not apply to an arbitrary theoretical system at all, but is instinctive. It means obedience to the limits under which the artist works. The really greatest art craftsmen of all

have been those who have recognized the limitations of the material which they employed. Some of the cleverest have been beguiled by the fascination of overcoming obstacles, into trying to make iron do the things appropriate only to wood, or to force cast bronze into the similitude of a picture, or to discount all the credit due to a fine piece of embroidery by trying to make it appear like a painting. But these are the exotics; they are the craftsmen who have been led astray by a false impulse, who respect difficulty more than appropriateness, war rather than peace! No elaborate and tortured piece of Cellini's work can compare with the dignified glory of the Pala d'Oro; Ghiberti's gates in Florence, though a marvellous *tour de force*, are not so satisfying as the great corona candelabrum of Hildesheim. As a rule, we shall find that mediæval craftsmen were better artists than those of the Renaissance, for with facility in the use of material, comes always the temptation to make it imitate some other material, thus losing its individuality by a contortion which may be curious and interesting, but out of place. We all enjoy seeing acrobats on the stage, but it would be painful to see them curling in and out of our drawing-room chairs.

The true spirit which the Arts and Crafts is trying to inculcate was found in Florence when the great artists turned their attention to the manipulation of objects of daily use, Benvenuto Cellini being willing to make salt-cellars, and Sansovino to work on inkstands, and

Donatello on picture frames, while Pollajuolo made candlesticks. The more our leading artists realize the need of their attention in the minor arts, the more nearly shall we attain to a genuine alliance between the arts and the crafts.

To sum up the effect of this harmony between art and craft in the Middle Ages, the Abbé Texier has said: "In those days art and manufactures were blended and identified; art gained by this affinity great practical facility, and manufacture much original beauty." And then the value to the artist is almost incalculable. To spend one's life in getting means on which to live is a waste of all enjoyment. To use one's life as one goes along — to live every day with pleasure in congenial occupation — that is the only thing worth while. The life of a craftsman is a constant daily fulfilment of the final ideal of the man who spends all his time and strength in acquiring wealth so that some time (and he may never live to see the day) he may be able to control his time and to use it as pleases him. There is stored up capital represented in the life of a man whose work is a recreation, and expressive of his own personality.

In a book of this size it is not possible to treat of every art or craft which engaged the skill of the mediæval workers. But at some future time I hope to make a separate study of the ceramics, glass in its various forms, the arts of engraving and printing, and some of the many others which have added so much to the pleasure and beauty of the civilized world.

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ARTS AND CRAFTS IN THE MIDDLE AGES

CHAPTER I

GOLD AND SILVER

THE worker in metals is usually called a smith, whether he be coppersmith or goldsmith. The term is Saxon in origin, and is derived from the expression "he that smiteth." Metal was usually wrought by force of blows, except where the process of casting modified this.

Beaten work was soldered from the earliest times. Egyptians evidently understood the use of solder, for the Hebrews obtained their knowledge of such things from them, and in Isaiah xli. 7, occurs the passage: "So the carpenter encouraged the goldsmith, and he that smootheth with the hammer him that smote the anvil, saying, 'It is ready for the soldering.'" In the Bible there are constant references to such arts in metal work as prevail in our own times: "Of beaten work made he the candlesticks," Exodus. In the ornaments of the tabernacle, the artificer Bezaleel "made two cherubims of gold beaten out of one piece made he them."

An account of gold being gathered in spite of vicis-

situdes is given by Pliny: "Among the Dardoe the ants are as large as Egyptian wolves, and cat coloured. The Indians gather the gold dust thrown up by the ants, when they are sleeping in their holes in the Summer; but if these animals wake, they pursue the Indians, and, though mounted on the swiftest camels, overtake and tear them to pieces."

Another legend relates to the blessed St. Patrick, through whose intercession special grace is supposed to have been granted to all smiths. St. Patrick was a slave in his youth. An old legend tells that "one time a wild boar came rooting in the field, and brought up a lump of gold; and Patrick brought it to a tinker, and the tinker said, "It is nothing but solder. Give it here to me." But then he brought it to a smith, and the smith told him it was gold; and with that gold he bought his freedom. "And from that time," continues the story, "the smiths have been lucky, taking money every day, and never without work, but as for the tinkers, every man's face is against them!"

In the Middle Ages the arts and crafts were generally protected by the formation of guilds and fraternities. These bodies practically exercised the right of patent over their professions, and infringements could be more easily dealt with, and frauds more easily exposed, by means of concerted effort on the part of the craftsmen. The goldsmiths and silversmiths were thus protected in England and France, and in most of the leading European art centres. The test of pure gold was made

by "six of the more discreet goldsmiths," who went about and superintended the amount of alloy to be employed; "gold of the standard of the touch of Paris" was the French term for metal of the required purity. Any goldsmith using imitation stones or otherwise falsifying in his profession was punished "by imprisonment and by ransom at the King's pleasure." There were some complaints that fraudulent workers "cover tin with silver so subtilely . . . that the same cannot be discovered or separated, and so sell tin for fine silver, to the great damage and deceipt of us." This state of things finally led to the adoption of the Hall Mark, which is still to be seen on every piece of silver, signifying that it has been pronounced pure by the appointed authorities.

The goldsmiths of France absorbed several other auxiliary arts, and were powerful and influential. In state processions the goldsmiths had the first place of importance, and bore the royal canopy when the King himself took part in the ceremony, carrying the shrine of St. Genevieve also, when it was taken forth in great pageants.

In the quaint wording of the period, goldsmiths were forbidden to gild or silver-plate any article made of copper or latten, unless they left some part of the original exposed, "at the foot or some other part, . . . to the intent that a man may see whereof the thing is made for to eschew the deceipt aforesaid." This law was enacted in 1404.

Many of the great art schools of the Middle Ages were established in connection with the numerous monasteries scattered through all the European countries and in England. The Rule of St. Benedict rings true concerning the proper consecration of an artist: "If there be artists in the monastery, let them exercise their crafts with all humility and reverence, provided the abbot shall have ordered them. But if any of them be proud of the skill he hath in his craft, because he thereby seemeth to gain something for the monastery, let him be removed from it and not exercise it again, unless, after humbling himself, the abbot shall permit him." Craft without graft was the keynote of mediæval art.

King Alfred had a monastic art school at Athelney, in which he had collected "monks of all kinds from every quarter." This accounts for the Greek type of work turned out at this time, and very likely for Italian influences in early British art. The king was active in craft work himself, for Asser tells us that he "continued, during his frequent wars, to teach his workers in gold and artificers of all kinds."

The quaint old encyclopædia of Bartholomew Anglicus, called, "The Properties of Things," defines gold and silver in an original way, according to the beliefs of this writer's day. He says of gold, that "in the composition there is more sadness of brimstone than of air and moisture of quicksilver, and therefore gold is more sad and heavy than silver." Of silver he remarks,

"Though silver be white yet it maketh black lines and strakes in the body that is scored therewith."

Marco Polo says that in the province of Carazan "the rivers yield great quantities of washed gold, and also that which is solid, and on the mountains they find gold in the vein, and they give one pound of gold for six of silver."

Workers in gold or silver usually employ one of two methods — casting or beating, combined with delicacy of finish, chasing, and polishing. The technical processes are interestingly described by the writers of the old treatises on divers arts. In the earliest of these, by the monk Theophilus, in the eleventh century, we have most graphic accounts of processes very similar to those now in use. The naïve monastic instructor, in his preface, exhorts his followers to honesty and zeal in their good works. "Skilful in the arts let no one glorify himself," say Theophilus, "as if received from himself, and not from elsewhere; but let him be thankful humbly in the Lord, from whom all things are received." He then advises the craftsman earnestly to study the book which follows, telling him of the riches of instruction therein to be found; "you will there find out whatever . . . Tuscany knows of mosaic work, or in variety of enamels, whatever Arabia shows forth in work of fusion, ductility or chasing, whatever Italy ornaments with gold . . . whatever France loves in a costly variety of windows; whatever industrious Germany approves in work of gold, silver or copper, and iron, of woods and

of stones." No wonder the authorities are lost in conjecture as to the native place of the versatile Theophilus! After promising all these delightful things, the good old monk continues, " Act therefore, well intentioned man, . . . hasten to complete with all the study of thy mind, those things which are still wanting among the utensils of the House of the Lord," and he enumerates the various pieces of church plate in use in the Middle Ages.

Directions are given by Theophilus for the workroom, the benches at which the smiths are to sit, and also the most minute technical recipes for "instruments for sculping," for scraping, filing, and so forth, until the workshop should be fitted with all necessary tools. In those days, artists began at the very beginning. There were no " Windsor and Newtons," no nice makers of dividers and T-squares, to whom one could apply; all implements must be constructed by the man who contemplated using them.

We will see how Theophilus proceeds, after he has his tools in readiness, to construct a chalice. First, he puts the silver in a crucible, and when it has become fluid, he turns it into a mould in which there is wax (this is evidently the "cire perdu " process familiar to casters of every age), and then he says, " If by some negligence it should happen that the melted silver be not whole, cast it again until it is whole." This process of casting would apply equally to all metals.

Theophilus instructs his craftsman how to make the

handles of the chalice as follows: "Take wax, form handles with it, and grave upon them dragons or animals or birds, or leaves — in whatever manner you may wish. But on the top of each handle place a little wax, round like a slender candle, half a finger in length, . . . this wax is called the funnel. . . . Then take some clay and cover carefully the handle, so that the hollows of the sculpture may be filled up. . . . Afterwards place these moulds near the coals, that when they have become warm you may pour out the wax. Which being turned out, melt the silver, . . . and cast into the same place whence you poured out the wax. And when they have become cold remove the clay." The solid silver handles are found inside, one hardly need say.

In casting in the "cire perdu" process, Benvenuto Cellini warns you to beware lest you break your crucible —"just as you've got your silver nicely molten," he says, "and are pouring it into the mould, crack goes your crucible, and all your work and time and pains are lost!" He advises wrapping it in stout cloths.

The process of repoussé work is also much the same to-day as it has always been. The metal is mounted on cement and the design partly beaten in from the outside; then the cement is melted out, and the design treated in more detail from the inside. Theophilus tells us how to prepare a silver vessel to be beaten with a design. After giving a recipe for a sort of pitch, he says, "Melt this composition and fill the vial to the top. And when it has become cold, portray . . . what-

ever you wish, and taking a slender ductile instrument, and a small hammer, design that which you have portrayed around it by striking lightly." This process is practically, on a larger scale, what Cellini describes as that of "minuterie." Cellini praises Caradosso beyond all others in this work, saying "it was just in this very getting of the gold so equal all over, that I never knew a man to beat Caradosso!" He tells how important this equality of surface is, for if, in the working, the gold became thicker in one place than in another, it was impossible to attain a perfect finish. Caradosso made first a wax model of the object which he was to make; this he cast in copper, and on that he laid his thin gold, beating and modelling it to the form, until the small hollow bas-relief was complete. The work was done with wooden and steel tools of small proportions, sometimes pressed from the back and sometimes from the front; "ever so much care is necessary," writes Cellini, ". . . to prevent the gold from splitting." After the model was brought to such a point of relief as was suitable for the design, great care had to be exercised in extending the gold further, to fit behind heads and arms in special relief. In those days the whole film of gold was then put in the furnace, and fired until the gold began to liquefy, at which exact moment it was necessary to remove it. Cellini himself made a medal for Girolamo Maretta, representing Hercules and the Lion; the figures were in such high relief that they only touched the ground at a few points.

Cellini reports with pride that Michelangelo said to him: "If this work were made in great, whether in marble or in bronze, and fashioned with as exquisite a design as this, it would astonish the world; and even in its present size it seems to me so beautiful that I do not think even a goldsmith of the ancient world fashioned aught to come up to it!" Cellini says that these words "stiffened him up," and gave him much increased ambition. He describes also an Atlas which he constructed of wrought gold, to be placed upon a lapis lazuli background: this he made in extreme relief, using tiny tools, "working right into the arms and legs, and making all alike of equal thickness." A cope-button for Pope Clement was also quite a *tour de force;* as he said, "these pieces of work are often harder the smaller they are." The design showed the Almighty seated on a great diamond; around him there were "a number of jolly little angels," some in complete relief. He describes how he began with a flat sheet of gold, and worked constantly and conscientiously, gradually bossing it up, until, with one tool and then another, he finally mastered the material, "till one fine day God the Father stood forth in the round, most comely to behold." So skilful was Cellini in this art that he "bossed up in high relief with his punches some fifteen little angels, without even having to solder the tiniest rent!" The fastening of the clasp was decorated with "little snails and masks and other pleasing trifles," which suggest to us that

Benvenuto was a true son of the Renaissance, and that his design did not equal his ability as a craftsman.

Cellini's method of forming a silver vase was on this wise. The original plate of silver had to be red hot, "not too red, for then it would crack, — but sufficient to burn certain little grains thrown on to it." It was then adjusted to the stake, and struck with the hammer, towards the centre, until by degrees it began to take convex form. Then, keeping the central point always in view by means of compasses, from that point he struck "a series of concentric circles about half a finger apart from each other," and with a hammer, beginning at the centre, struck so that the "movement of the hammer shall be in the form of a spiral, and follow the concentric circles." It was important to keep the form very even all round. Then the vase had to be hammered from within, "till it was equally bellied all round," and after that, the neck was formed by the same method. Then, to ornament the vase, it was filled with pitch, and the design traced on the outside. When it was necessary to beat up the ornament from within, the vase was cleared out, and inverted upon the point of a long "snarling-iron," fastened in an anvil stock, and beaten so that the point should indent from within. The vase would often have to be filled with pitch and emptied in this manner several times in the course of its construction.

Benvenuto Cellini was one of the greatest art personalities of all time. The quaintness of the æsthetic

temperament is nowhere found better epitomized than in his life and writings. But as a producer of artistic things, he is a great disappointment. Too versatile to be a supreme specialist, he is far more interesting as a man and craftsman than as a designer. Technical skill he had in unique abundance. And another faculty, for which he does not always receive due credit, is his gift for imparting his knowledge. His Treatises, containing valuable information as to methods of work, are less familiar to most readers than his fascinating biography. These Treatises, or directions to craftsmen, are full of the spice and charm which characterize his other work. One cannot proceed from a consideration of the bolder metal work to a study of the dainty art of the goldsmith without a glance at Benvenuto Cellini.

The introduction to the Treatises has a naïve opening: "What first prompted me to write was the knowledge of how fond people are of hearing anything new." This, and other reasons, induced him to "write about those loveliest secrets and wondrous methods of the great art of goldsmithing."

Francis I. indeed thought highly of Cellini. Upon viewing one of his works, his Majesty raised his hands, and exclaimed to the Mareschal de France, "I command you to give the first good fat abbey that falls vacant to our Benvenuto, for I do not want my kingdom to be deprived of his like."

Benvenuto describes the process of making filigree work, the principle of which is, fine wire coiled flat so

as to form designs with an interesting and varied surface. Filigree is quite common still, and any one who has walked down the steep street of the Goldsmiths in Genoa is familiar with most of its modern forms. Cellini says: "Though many have practised the art without making drawings first, because the material in which they worked was so easily handled and so pliable, yet those who made their drawings first did the best work. Now give ear to the way the art is pursued." He then directs that the craftsman shall have ready three sizes of wire, and some little gold granules, which are made by cutting the short lengths of wire, and then subjecting them to fervent heat until they become as little round beads. He then explains how the artificer must twist and mould the delicate wires, and tastily apply the little granules, so as to make a graceful design, usually of some floriate form. When the wire flowers and leaves were formed satisfactorily, a wash of gum tragacanth should be applied, to hold them in place until the final soldering. The solder was in powdered form, and it was to be dusted on "just as much as may suffice, . . . and not more," . . . this amount of solder could only be determined by the experience of the artist. Then came the firing of the finished work in the little furnace; Benvenuto is here quite at a loss how to explain himself: "Too much heat would move the wires you have woven out of place," he says, "really it is quite impossible to tell it properly in writing; I could explain it all right by word of mouth, or better still, show you how it is

done, — still, come along, — we'll try to go on as we started!"

Sometimes embossing was done by thin sheets of metal being pressed on to a wooden carving prepared for the purpose, so that the result would be a raised silver pattern, which, when filled up with pitch or lead, would pass for a sample of repoussé work. I need hardly say that a still simpler mechanical form of pressing obtains on cheap silver to-day.

So much for the mechanical processes of treating these metals. We will now examine some of the great historic examples, and glance at the lives of prominent workers in gold and silver in the past.

One of the most brilliant times for the production of works of art in gold and silver, was when Constantine, upon becoming Christian, moved the seat of government to Byzantium. Byzantine ornament lends itself especially to such work. The distinguishing mark between the earlier Greek jewellers and the Byzantine was, that the former considered chiefly line, form, and delicacy of workmanship, while the latter were led to expression through colour and texture, and not fineness of finish.

The Byzantine emperors loved gold in a lavish way and on a superb scale. They were not content with chaste rings and necklets, or even with golden crowns. The royal thrones were of gold; their armour was decorated with the precious metal, and their chariots enriched in the same way. Even the houses of the rich people

were more endowed with precious furnishings than most of the churches of other nations, and every family possessed a massive silver table, and solid vases and plate.

The Emperor Theophilus, who lived in the ninth century, was a great lover of the arts. His palace was built after the Arabian style, and he had skilful mechanical experts to construct a golden tree over his throne, on the branches of which were numerous birds, and two golden lions at the foot. These birds were so arranged by clockwork, that they could be made to sing, and the lions also joined a roar to the chorus!

A great designer of the Middle Ages was Alcuin, the teacher of Charlemagne, who lived from 735 to 804; he superintended the building of many fine specimens of church plate. The school of Alcuin, however, was more famous for illumination, and we shall speak of his work at more length when we come to deal with that subject.

Another distinguished patron of art was the Abbot Odo of Cluny, who had originally been destined for a soldier; but he was visited with what Maitland describes as "an inveterate headache, which, from his seventeenth to his nineteenth year, defied all medical skill," so he and his parents, convinced that this was a manifestation of the disapproval of Heaven, decided to devote his life to religious pursuits. He became Abbot of Cluny in the year 927.

Examples of ninth century goldsmithing are rare.

Judging from the few specimens existing, the crown of Charlemagne, and the beautiful binding of the Hours of Charles the Bold, one would be inclined to think

CROWN OF CHARLEMAGNE

that an almost barbaric wealth of closely set jewels was the entire standard of the art of the time, and that grace of form or contour was quite secondary. Charlemagne was buried seated on a golden throne. The tomb was rifled about the twelfth century, and

many of the valuable things with which he was surrounded were taken away. The throne was denuded of its gold, and may be seen to-day in the Cathedral at Aachen, a simple marble chair plain and dignified, with the copper joints showing its construction. Many of the relics of Charlemagne are in the treasury at Aachen, among other interesting items, the bones of the right arm of the Emperor in a golden shrine in the form of a hand and arm. There is a thrill in contemplating the remains of the right arm of Charlemagne after all the centuries, when one remembers the swords and sceptres which have been wielded by that mighty member. The reliquary containing the right arm of Charlemagne is German work (of course later than the opening of the tomb), probably between 1155 and 1190. Frederic Barbarossa and his ancestors are represented on its ornamentation.

There is little goldsmith's work of the Norman period in Great Britain, for that was a time of the building of large structures, and probably minor arts and personal adornment took a secondary place.

Perhaps the most satisfactory display of mediæval arts and crafts which may be seen in one city is at Hildesheim: the special richness of remains of the tenth century is owing to the life and example of an early bishop — Bernward — who ruled the See from 993 to 1022. Before he was made bishop, Bernward was tutor to the young Emperor Otto III. He was a student of art all his life, and a practical craftsman, working

BERNWARD'S CROSS AND CANDLESTICKS, HILDESHEIM

largely in metals, and training up a Guild of followers in the Cathedral School. He was extremely versatile: one of the great geniuses of history. In times of war he was Commander in Chief of Hildesheim; he was a traveller, having made pilgrimages to Rome and Paris, and the grave of St. Martin at Tours. This wide culture was unusual in those days; it is quite evident from his active life of accomplishment in creative art, that good Bishop Bernward was not to be numbered among those who expected the end of the world to occur in the year 1000 A. D. Of his works to be seen in Hildesheim, there are splendid examples. The Goldsmith's School under his direction was famous.

He was created bishop in 992; Taugmar pays him a tribute, saying: "He was an excellent penman, a good painter, and as a household manager was unequalled." Moreover, he "excelled in the mechanical no less than in the liberal arts." In fact, a visit to Hildesheim to-day proves that to this man who lived ten centuries ago is due the fact that Hildesheim is the most artistic city in Germany from the antiquarian's point of view. This bishop influenced every branch of art, and with so vital an influence, that his See city is still full of his works and personality. He was not only a practical worker in the arts and crafts, but he was also a collector, forming quite a museum for the further instruction of the students who came in touch with him. He decorated the walls of his cathedral; the great candelabrum, or corona, which circles above the central aisle of the

cathedral, was his own design, and the work of his followers; and the paschal column in the cathedral was from his workshop, wrought as delightfully as would be possible in any age, and yet executed nearly a thousand years ago. No bishop ever deserved sainthood more, or made a more practical contribution to the Church. Pope Celestine III. canonized him in 1194.

Bernward came of a noble family. His figure may be seen — as near an approach to a portrait of this great worker as we have — among the bas-reliefs on the beautiful choir-screen in St. Michael's Church in Hildesheim.

The cross executed by Bernward's own hands in 994 is a superb work, with filigree covering the whole, and set with gems *en cabochon*, with pearls, and antique precious stones, carved with Greek divinities in intaglio. The candlesticks of St. Bernward, too, are most interesting. They are made of a metal composed of gold, silver, and iron, and are wrought magnificently, into a mass of animal and floriate forms, their outline being well retained, and the grace of the shaft and proportions being striking. They are partly the work of the mallet and partly of the chisel. They had been buried with Bernward, and were found in his sarcophagus in 1194. Didron has likened them, in their use of animal form, to the art of the Mexicans; but to me they seem more like delightful German Romanesque workmanship, leaning more towards that of certain spirited Lombard grotesques, or even that of Arles and certain parts of

BERNWARD'S CHALICE, HILDESHEIM

France, than to the Aztec to which Didron has reference. The little climbing figures, while they certainly have very large hands and feet, yet are endowed with a certain sprightly action; they all give the impression of really making an effort, — they are trying to climb, instead of simply occupying places in the foliage. There is a good deal of strength and energy displayed in all of them, and, while the work is rude and rough, it is virile. It is not unlike the workmanship on the Gloucester candlestick in the South Kensington Museum, which was made in the twelfth century.

Bernward's chalice is set with antique stones, some of them carved. On the foot may be seen one representing the three Graces, in their customary state of nudity "without malice."

Bernward was also an architect. He built the delightful church of St. Michael, and its cloister. He also superintended the building of an important wall by the river bank in the lower town.

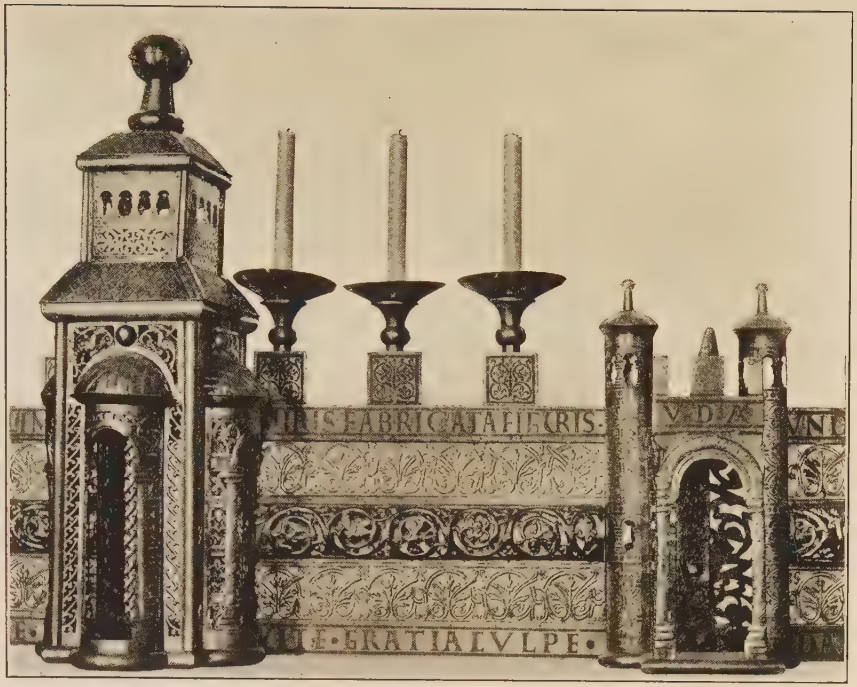
When there was an uneasy time of controversy at Gandesheim, Bernward hastened to headquarters in Rome, to arrange to bring about better feeling. In 1001 he arrived, early in January, and the Pope went out to meet him, kissed him, and invited him to stay as a guest at his palace. After accomplishing his diplomatic mission, and laden with all sorts of sacred relics, Bernward returned home, not too directly to prevent his seeing something of the intervening country.

A book which Bishop Bernward had made and

illuminated in 1011 has the inscription: "I, Bernward, had this codex written out, at my own cost, and gave it to the beloved Saint of God, Michael. Anathema to him who alienates it." This inscription has the more interest for being the actual autograph of Bernward.

He was succeeded by Hezilo, and many other pupils. These men made the beautiful corona of the cathedral, of which I give an illustration in detail. Great coronas or circular chandeliers hung in the naves of many cathedrals in the Middle Ages. The finest specimen is this at Hildesheim, the magnificent ring of which is twenty feet across, as it hangs suspended by a system of rods and balls in the form of chains. It has twelve large towers and twelve small ones set around it, supposed to suggest the Heavenly Jerusalem with its many mansions. There are sockets for seventy-two candles. The detail of its adornment is very splendid, and repays close study. Every little turret is different in architectonic form, and statues of saints are to be seen standing within these. The pierced silver work on this chandelier is as beautiful as any mediæval example in existence.

The great leader of mediæval arts in France was the Abbot Suger of St. Denis. Suger was born in 1081, he and his brother, Alvise, who was Bishop of Arras, both being destined for the Episcopate. As a youth he passed ten years at St. Denis as a scholar. Here he became intimate with Prince Louis, and this friendship developed in after life. On returning from a voyage to



CORONA AT HILDESHEIM (DETAIL)

Italy, in 1122, he learned at the same time of the death of his spiritual father, Abbot Adam, and of his own election to be his successor. He thus stood at the head of the convent of St. Denis in 1123. This was due to his noble character, his genius for diplomacy and his artistic talent. He was minister to Louis VI., and afterwards to Louis VII., and during the second Crusade, he was made Regent for the kingdom. Suger was known, after this, as the Father of his Country, for he was a courageous counsellor, firm and convincing in argument, so that the king had really been guided by his advice. While he was making laws and instigating crusades, he was also directing craft shops and propagating the arts in connection with the life of the Church. St. Bernard denounced him, as encouraging too luxurious a ritual; Suger made a characteristic reply: "If the ancient law . . . ordained that vessels and cups of gold should be used for libations, and to receive the blood of rams, . . . how much rather should we devote gold, precious stones, and the rarest of materials, to those vessels which are destined to contain the blood of Our Lord."

Suger ordered and himself made most beautiful appointments for the sanctuary, and when any vessel already owned by the Abbey was of costly material, and yet unsuitable in style, he had it remodelled. An interesting instance of this is a certain antique vase of red porphyry. There was nothing ecclesiastical about this vase; it was a plain straight Greek jar, with two handles at the sides. Suger treated it as the body of

an eagle, making the head and neck to surmount it, and the claw feet for it to stand on, together with its soaring wings, of solid gold, and it thus became transformed into a magnificent reliquary in the form of the king of birds. The inscription on this Ampula of Suger is: "As it is our duty to present unto God oblations of gems and gold, I, Suger, offer this vase unto the Lord."

Suger stood always for the ideal in art and character. He had the courage of his convictions in spite of the fulminations of St. Bernard. Instead of using the enormous sums of money at his disposal for importing Byzantine workmen, he preferred to use his funds and his own influence in developing a native French school of artificers.

It is interesting to discover that Suger, among his many adaptations and restorations at St. Denis, incorporated some of the works of St. Eloi into his own compositions. For instance, he took an ivory pulpit, and remodelled it with the addition of copper animals. Abbots of St. Denis made beautiful offerings to the church. One of them, Abbot Matthiew de Vendôme, presented a wonderful reliquary, consisting of a golden head and bust, while another gave a reliquary to contain the jaw of St. Louis. Suger presented many fine products of his own art and that of his pupils, among others a great cross six feet in height. A story is told of him, that, while engaged in making a particularly splendid crucifix for St. Denis, he ran short of precious

stones, nor could he in any way obtain what he required, until some monks came to him and offered to sell him a superb lot of stones which had formerly embellished the dinner service of Henry I. of England, whose nephew had given them to the convent in exchange for indulgences and masses! In these early and half-barbaric days of magnificence, form and delicacy of execution were not understood. Brilliancy and lavish display of sparkling jewels, set as thickly as possible without reference to a general scheme of composition, was the standard of beauty; and it must be admitted that, with such stones available, no more effective school of work has ever existed than that of which such works as Charlemagne's crown, the Iron Crown of Monza, and the crown of King Suinthila, are typical examples. Abbot Suger lamented when he lacked a sufficient supply of stones; but he did not complain when there occurred a deficiency in workmen. It was comparatively easy to train artists who could make settings and bind stones together with soldered straps!

In 1352 a royal silversmith of France, Etienne La Fontaine, made a "fauteuil of silver and crystal decorated with precious stones," for the king.

The golden altar of Basle is almost as interesting as the great Pala d'Oro in Venice, of which mention is made elsewhere. It was ordered by Emperor Henry the Pious, before 1024, and presented to the Prime Minister at Basle. The central figure of the Saviour has at its feet two tiny figures, quite out of scale; these are

intended for the donors, Emperor Henry and his queen, Cunegunda.

Silversmith's work in Spain was largely in Byzantine style, while some specimens of Gothic and Roman are also to be seen there. Moorish influence is noticeable, as in all Spanish design, and filigree work of Oriental origin is frequently to be met with. Some specimens of champlevé enamel are also to be seen, though this art was generally confined to Limoges during the Middle Ages. A Guild was formed in Toledo which was in flourishing condition in 1423.

An interesting document has been found in Spain showing that craftsmen were supplied with the necessary materials when engaged to make valuable figures for the decoration of altars. It is dated May 12, 1367, "I, Sancho Martinez Orebse, silversmith, native of Seville, inform you, the Dean and Chapter of the church of Seville, that it was agreed that I make an image of St. Mary with its tabernacle, that it should be finished at a given time, and that you were to give me the silver and stones required to make it."

In Spain, the most splendid triumphs of the goldsmith's skill were the "custodias," or large tabernacles, in which the Host was carried in procession. The finest was one made for Toledo by Enrique d'Arphe, in competition with other craftsmen. His design being chosen, he began his work in 1517, and in 1524 the custodia was finished. It was in the form of a Gothic temple, six sided, with a jewelled cross on the top, and was eight

feet high. Some of the gold employed was the first ever brought from America. The whole structure weighed three hundred and eighty-eight pounds. Arphe made a similar custodia for Cordova and another for Leon. His grandson, Juan d'Arphe, wrote a verse about the Toledo custodia, in which these lines occur:

> "Custodia is a temple of rich plate
> Wrought for the glory of Our Saviour true . . .
> That holiest ark of old to imitate,
> Fashioned by Bezaleel the cunning Jew,
> Chosen of God to work his sovereign will,
> And greatly gifted with celestial skill."

Juan d'Arphe himself made a custodia for Seville, the decorations and figures on which were directed by the learned Francesco Pacheco, the father-in-law of Velasquez. When this custodia was completed, d'Arphe wrote a description of it, alluding boldly to this work as "the largest and finest work in silver known of its kind," and this could really be said without conceit, for it is a fact.

A Gothic form of goldsmith's work obtained in Spain in the 13th, 14th and 15th centuries; it was based upon architectural models and was known as "plateresca." The shrines for holding relics became in these centuries positive buildings on a small scale in precious material. In England also were many of these shrines, but few of them now remain.

The first Mayor of London, from 1189 to 1213, was a goldsmith, Henry Fitz Alwyn, the Founder of the Royal Exchange; Sir Thomas Gresham, in 1520, was

also a goldsmith and a banker. There is an entertaining piece of cynical satire on the Goldsmiths in Stubbes' Anatomy of Abuses, written in the time of Queen Elizabeth, showing that the tricks of the trade had come to full development by that time, and that the public was being aroused on the subject. Stubbes explains how the goldsmith's shops are decked with chains and rings, "wonderful richly." Then he goes on to say: "They will make you any monster or article whatsoever of gold, silver, or what you will. Is there no deceit in these goodlye shows? Yes, too many; if you will buy a chain of gold, a ring, or any kind of plate, besides that you shall pay almost half more than it is worth . . . you shall also perhaps have that gold which is naught, or else at least mixed with drossie rubbage. . . . But this happeneth very seldom by reason of good orders, and constitutions made for the punishment of them that offend in this kind of deceit, and therefore they seldom offend therein, though now and then they chance to stumble in the dark!"

Fynes Moryson, a traveller who died in 1614, says that "the goldsmiths' shops in London . . . are exceedingly richly furnished continually with gold, with silver plate, and with jewels. . . . I never see any such daily show, anything so sumptuous, in any place in the world, as in London." He admits that in Florence and Paris the similar shops are very rich upon special occasions; but it is the steady state of the market in London to which he has reference.

The Company of Goldsmiths in Dublin held quite a prominent social position in the community. In 1649, a great festival and pageant took place, in which the goldsmiths and visiting craftsmen from other corporations took part.

Henry III. set himself to enrich and beautify the shrine of his patron saint, Edward the Confessor, and with this end in view he made various extravagant demands: for instance, at one time he ordered all the gold in London to be detailed to this object, and at another, he had gold rings and brooches purchased to the value of six hundred marks. The shrine was of gold, and, according to Matthew Paris, enriched with jewels. It was commenced in 1241. In 1244 the queen presented an image of the Virgin with a ruby and an emerald. Jewels were purchased from time to time,—a great cameo in 1251, and in 1255 many gems of great value. The son of Odo the Goldsmith, Edward, was the "king's beloved clerk," and was made "keeper of the shrine." Most of the little statuettes were described as having stones set somewhere about them: "an image of St. Peter holding a church in one hand and the keys in the other, trampling on Nero, who had a big sapphire on his breast;" and "the Blessed Virgin with her Son, set with rubies, sapphires, emeralds, and garnets," are among those cited. The whole shrine was described as "a basilica adorned with purest gold and precious stones."

Odo the Goldsmith was in charge of the works for a

good while. He was succeeded by his son Edward. Payments were made sometimes in a regular wage, and sometimes for "task work." The workmen were usually known by one name — Master Alexander the King's Carpenter, Master Henry the King's Master Mason, and so forth. In an early life of Edward the Confessor, there is an illumination showing the masons and carpenters kneeling to receive instruction from their sovereign.

The golden shrine of the Confessor was probably made in the Palace itself; this was doubtless considered the safest place for so valuable a work to remain in process of construction; for there is an allusion to its being brought on the King's own shoulders (with the assistance of others), from the palace to the Abbey, in 1269, for its consecration.

In 1243 Henry III. ordered four silver basins, fitted with cakes of wax with wicks in them, to be placed as lights before the shrine of Thomas à Becket in Canterbury. The great gold shrine of Becket appears to have been chiefly the work of a goldsmith, Master Adam. He also designed the Coronation Chair of England, which is now in Westminster Abbey.

The chief goldsmith of England employed by Edward I. was one Adam of Shoreditch. He was versatile, for he was also a binder of books. A certain bill shows an item of his workmanship, "a group in silver of a child riding upon a horse, the child being a likeness of Lord Edward, the King's son."

A veritable Arts and Crafts establishment had been in existence in Woolstrope, Lincolnshire, before Cromwell's time; for Georde Gifford wrote to Cromwell regarding the suppression of this monastery: "There is not one religious person there but what doth use either embrothering, wryting books with a faire hand, making garments, or carving."

In all countries the chalices and patens were usually designed to correspond with each other. The six lobed dish was a very usual form; it had a depressed centre, with six indented scallops, and the edge flat like a dinner plate. In an old church inventory, mention is made of "a chalice with *his* paten." Sometimes there was lettering around the flat edge of the paten. Chalices were composed of three parts: the cup, the ball or knop, and the stem, with the foot. The original purpose of having this foot hexagonal in shape is said to have been to prevent the chalice from rolling when it was laid on its side to drain. Under many modifications this general plan of the cup has obtained. The bowl is usually entirely plain, to facilitate keeping it clean; most of the decoration was lavished on the knop, a rich and uneven surface being both beautiful and functional in this place.

Such Norman and Romanesque chalices as remain are chiefly in museums now. They were usually "coffin chalices" — that is, they had been buried in the coffin of some ecclesiastic. Of Gothic chalices, or those of the Tudor period, fewer remain, for after the Reformation,

a general order went out to the churches, for all "chalices to be altered to decent Communion cups." The shape was greatly modified in this change.

In the thirteenth century the taste ran rather to a chaster form of decoration; the large cabochons of the Romanesque, combined with a liquid gold surface, gave place to refined ornaments in niello and delicate enamels. The bowls of the earlier chalices were rather flat and broad. When it became usual for the laity to partake only of one element when communicating, the chalice, which was reserved for the clergy alone, became modified to meet this condition, and the bowl was much smaller. After the Reformation, however, the development was quite in the other direction, the bowl being extremely large and deep. In that period they were known as communion cups. In Sandwich there is a cup which was made over out of a ciborium; as it quite plainly shows its origin, it is naïvely inscribed: "This is a Communion Coop." When this change in the form of the chalice took place, it was provided, by admonition of the Archbishop, in all cases with a "cover of silver . . . which shall serve also for the ministration of the Communion bread." To make this double use of cover and dish satisfactory, a foot like a stand was added to the paten.

The communion cup of the Reformation differed from the chalice, too, in being taller and straighter, with a deep bowl, almost in the proportions of a flaring tumbler, and a stem with a few close decorations instead

of a knop. The small paten served as a cover to the cup, as has been mentioned.

It is not always easy to see old church plate where it originally belonged. On the Scottish border, for instance, there were constant raids, when the Scots would descend upon the English parish churches, and bear off the communion plate, and again the English would cross the border and return the compliment. In old churches, such as the eleventh century structure at Torpenhow, in Cumberland, the deep sockets still to be seen in the stone door jambs were intended to support great beams with which the church had constantly to be fortified against Scottish invasion. Another reason for the disappearance of church plate, was the occasional sale of the silver in order to continue necessary repairs on the fabric. In a church in Norfolk, there is a record of sale of communion silver and " for altering of our church and fynnishing of the same according to our mindes and the parishioners." It goes on to state that the proceeds were appropriated for putting new glass in the place of certain windows " wherein were conteined the lives of certain prophane histories," and for " paving the king's highway " in the church precincts. At the time of the Reformation many valuable examples of Church plate were cast aside by order of the Commissioners, by which " all monuments of feyned miracles, pilgrimages, idolatry, and superstition," were to be destroyed. At this time a calf or a sheep might have been seen browsing in the meadows with a sacring-bell fastened at its neck,

and the pigs refreshed themselves with drinking from holy-water fonts!

Croziers of ornate design especially roused the ire of the Puritans. In Mr. Alfred Maskell's incomparable book on Ivories, he translates a satirical verse by Guy de Coquille, concerning these objectionable pastoral staves (which were often made of finely sculptured ivory).

> "The staff of a bishop of days that are old
> Was of wood, and the bishop himself was of gold.
> But a bishop of wood prefers gorgeous array,
> So his staff is of gold in the new fashioned way!"

During the Renaissance especially, goldsmith's work was carried to great technical perfection, and yet the natural properties of the metal were frequently lost sight of, and the craftsmen tried to produce effects such as would be more suitable in stone or wood, — little architectonic features were introduced, and gold was frequently made to do the work of other materials. Thus it lost much of its inherent effectiveness. Too much attention was given to ingenuity, and not enough to fitness and beauty.

In documents of the fourteenth century, the following list of goldsmiths is given: Jean de Mantreux was goldsmith to King Jean. Claux de Friburg was celebrated for a gold statuette of St. John which he made for the Duke of Normandy. A diadem for this Duke was also recorded, made by Jean de Piguigny. Hannequin made

RELIQUARY AT ORVIETO

three golden crowns for Charles V. Hans Crest was goldsmith to the Duke of Orleans, while others employed by him were Durosne, of Toulouse, Jean de Bethancourt, a Flemish goldsmith. In the fifteenth century the names of Jean de Hasquin, Perrin Manne, and Margerie d'Avignon, were famous.

Artists in the Renaissance were expected to undertake several branches of their craft. Hear Poussin: "It is impossible to work at the same time upon frontispieces of books: a Virgin: at the picture for the congregation of St. Louis, at the designs for the gallery, and for the king's tapestry! I have only a feeble head, and am not aided by anyone!"

A goldsmith attached to the Court of King René of Anjou was Jean Nicolas. René also gave many orders to one Liguier Rabotin, of Avignon, who made him several cups of solid gold, on a large tray of the same precious metal. The king often drew his own designs or such bijoux.

Among the famous men of Italy were several who practised the art of the goldsmith. Ugolino of Siena constructed the wonderful reliquary at Orvieto; this is in shape somewhat similar to the façade of the cathedral.

Verocchio, the instructor of Leonardo da Vinci, accomplished several important pieces of jewelery in his youth: cope-buttons and silver statuettes, chiefly, which were so successful that he determined to take up the career of a sculptor. Ghirlandajo, as is well known,

was trained as a goldsmith originally, his father having been the inventor of a pretty fashion then prevailing among young girls of Florence, and being the maker of those golden garlands worn on the heads of maidens. The name Ghirlandajo, indeed, was derived from these garlands (ghirlandes).

Francia began life as a goldsmith, too, and was never in after life ashamed of his profession, for he often signed his works Francesco Francia Aurifex. Francia was a very skilful workman in niello, and in enamels. In fact, to quote the enthusiastic Vasari, "he executed everything that is most beautiful, and which can be performed in that art more perfectly than any other master had ever done." Baccio Baldini, also, was a goldsmith, although a greater portion of his ability was turned in the direction of engraving. His pupil Maso Finniguerra, who turned also to engraving, began his career as a goldsmith.

The great silver altar in the Baptistery in Florence occupied nearly all the goldsmiths in that city. In 1330 the father of the Orcagnas, Cione, died; he had worked for some years before that on the altar. In 1366 the altar was destroyed, but the parts in bas-relief by Cione were retained and incorporated into the new work, which was finished in 1478. Ghiberti, Orcagna, Verocchio, and Pollajuolo, all executed various details of this magnificent monument.

Goldsmiths did not quite change their standing and characteristics until late in the sixteenth century.

About that time it may be said that the last goldsmith of the old school was Claude Ballin, while the first jeweller, in the modern acceptation of the word, was Pierre de Montarsy.

Silver has always been selected for the better household utensils, not only on account of its beauty, but also because of its ductility, which is desirable in making larger vessels; its value, too, is less than that of gold, so that articles which would be quite out of the reach of most householders, if made in gold, become very available in silver. Silver is particularly adapted to daily use, for the necessary washing and polishing which it receives keeps it in good condition, and there is no danger from poison through corrosion, as with copper and brass.

In the middle ages the customary pieces of plate in English homes were basins, bottles, bowls, candlesticks, saucepans, jugs, dishes, ewers and flagons, and chafing-dishes for warming the hands, which were undoubtedly needed, when we remember how intense the cold must have been in those high, bare, ill-ventilated halls! There were also large cups called hanaps, smaller cups, plates, and porringers, salt-cellars, spoons, and salvers. Forks were of much later date.

There are records of several silver basins in the Register of John of Gaunt, and also in the Inventory of Lord Lisle: one being "a basin and ewer with arms" and another, "a shaving basin." John of Gaunt also owned "a silver bowl for the kitchen." If the mediæval household lacked comforts, it could teach us lessons in luxury

in some other departments! He also had a "pair of silver bottles, partly gilt, and enamelled, garnished with tissues of silk, white and blue," and a "casting bottle" for distributing perfume. Silver candelabra were recorded; these, of course, must have been in constant service, as the facilities for lighting were largely dependent upon them. When the Crown was once obliged to ask a loan from the Earl of Salisbury, in 1432, the Earl received, as earnest of payment, "two golden candelabra, garnished with pearls and precious stones."

In the Close Roll of Henry III. of England, there is found an interesting order to a goldsmith: "Edward, son of Eudo, with all haste, by day and by night, make a cup with a foot for the Queen: weighing two marks, not more; price twenty marks, against Christmas, that she may drink from it in that feast: and paint it and enamel it all over, and in every other way that you can, let it be decently and beautifully wrought, so that the King, no less than the said Queen, may be content therewith." All the young princes and princesses were presented with silver cups, also, as they came to such age as made the use of them expedient; Lionel and John, sons of Edward III., were presented with cups "with leather covers for the same," when they were one and three years old respectively. In 1423 the chief justice, Sir William Hankford, gave his great-granddaughter a baptismal gift of a gilt cup and a diamond ring, together with a curious testimonial of eight shillings and sixpence to the nurse!

Of dishes, the records are meagre, but there is an amusing entry among the Lisle papers referring to a couple of "conserve dishes" for which Lady Lisle expressed a wish. Husee had been ordered to procure these, but writes, "I can get no conserve dishes . . . however, if they be to be had, I will have of them, or it shall cost me hot water!" A little later he observes, "Towards Christmas day they shall be made at Bevoys, betwixt Abbeville and Paris."

Flagons were evidently a novelty in 1471, for there is an entry in the Issue Roll of Edward IV., which mentions "two ollas called silver flagons for the King." An olla was a Latin term for a jar. Lord Lisle rejoiced in "a pair of flagons, the gilt sore worn." Hanaps were more usual, and appear to have been usually in the form of goblets. They frequently had stands called "tripers." Sometimes these stands were very ornate, as, for instance, one owned by the Bishop of Carpentras, "in the shape of a flying dragon, with a crowned damsel sitting upon a green terrace." Another, belonging to the Countess of Cambridge, was described as being "in the shape of a monster, with three buttresses and three bosses of mother of pearl . . . and an ewer, . . . partly enamelled with divers babooneries" — a delightful expression! Other hanaps were in the forms of swans, oak trees, white harts, eagles, lions, and the like — probably often of heraldic significance.

A set of platters was sent from Paris to Richard II., all of gold, with balas rubies, pearls and sapphires set

in them. It is related of the ancient Frankish king, Chilperic, that he had made a dish of solid gold, "ornamented all over with precious stones, and weighing fifty pounds," while Lothaire owned an enormous silver basin bearing as decoration "the world with the courses of the stars and the planets."

The porringer was a very important article of table use, for pap, and soft foods such as we should term cereals, and for boiled pudding. These were all denominated porridge, and were eaten from these vessels. Soup was doubtless served in them as well. They were numerous in every household. In the Roll of Henry III. is an item, mentioning that he had ordered twenty porringers to be made, "like the one hundred porringers" which had already been ordered!

An interesting pattern of silver cups in Elizabethan times were the "trussing cups," namely, two goblets of silver, squat in shape and broad in bowl, which fitted together at the rim, so that one was inverted as a sort of cover on top of the other when they were not in use. Drinking cups were sometimes made out of cocoanuts, mounted in silver, and often of ostrich eggs, similarly treated, and less frequently of horns hollowed out and set on feet. Mediæval loving cups were usually named, and frequently for some estates that belonged to the owner. Cups have been known to bear such names as "Spang," "Bealchier," and "Crumpuldud," while others bore the names of the patron saints of their owners.

A kind of cruet is recorded among early French table silver, "a double necked bottle in divisions, in which to place two kinds of liquor without mixing them." A curious bit of table silver in France, also, was the "almsbox," into which each guest was supposed to put some piece of food, to be given to the poor.

Spoons were very early in their origin; St. Radegond is reported by a contemporary to have used a spoon, in feeding the blind and infirm. A quaint book of instructions to children, called "The Babee's Booke," in 1475, advises by way of table manners:

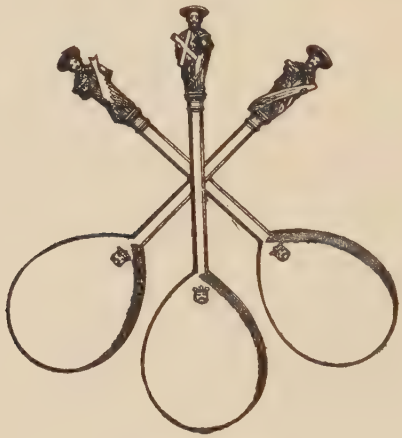
> "And whenever your potage to you shall be brought,
> Take your sponys and soupe by no way,
> And in your dish leave not your spoon, I pray!"

And a later volume on the same subject, in 1500, commends a proper respect for the implements of the table:

> "Ne playe with spoone, trencher, ne knife."

Spoons of curious form were evidently made all the way from 1300 to the present day. In an old will, in 1477, mention is made of spoons "wt leopards hedes printed in the sponself," and in another, six spoons "wt owles at the end of the handles." Professor Wilson said, "A plated spoon is a pitiful imposition," and he was right. If there is one article of table service in which solidity of metal is of more importance than in another, it is the spoon, which must perforce come in

contact with the lips whenever it is used. In England the earliest spoons were of about the thirteenth century, and the first idea of a handle seems to have been a plain shaft ending in a ball or knob. Gradually spoons began to show more of the decorative instinct of their designers; acorns, small statuettes, and such devices terminated the handles, which still retained their slender proportions,



APOSTLE SPOONS

however. Finally it became popular to have images of the Virgin on individual spoons, which led to the idea, after a bit, of decorating the dozen with the twelve apostles. These may be seen of all periods, differently elaborated. Sets of thirteen are occasionally met with, these having one with the statue of Jesus as the Good Shepherd, with a lamb on his shoulders: it is known as the "Master spoon."

The first mention of forks in France is in the Inventory of Charles V., in 1379. We hear a great deal about the promiscuous use of knives before forks were invented; how in the children's book of instructions they are enjoined "pick not thy teeth with thy knife," as if it were a general habit requiring to be checked. Massinger alludes to a

> "silver fork
> To convey an olive neatly to thy mouth,"

but this may apply to pickle forks. Forks were introduced from Italy into England about 1607.

A curiosity in cutlery is the "musical knife" at the Louvre; the blade is steel, mounted in parcel gilt, and the handle is of ivory. On the blade is engraved a few bars of music (arranged for the bass only), accompanying the words, "What we are about to take may Trinity in Unity bless. Amen." This is a literal translation. It indicates that there were probably three other knives in the set so ornamented, one with the soprano, one alto, and one tenor, so that four persons sitting down to table together might chant their "grace" in four-part harmony, having the requisite notes before them! It was a quaint idea, but quite in keeping with the taste of the sixteenth century.

The domestic plate of Louis, Duke of Anjou, in 1360, consisted of over seven hundred pieces, and Charles V. of France had an enormous treasury of such objects for daily use. Strong rooms and safes were built during

IVORY KNIFE HANDLES, WITH PORTRAITS OF QUEEN ELIZABETH AND JAMES I. ENGLIS

the fourteenth century, for the lodging of the household valuables. About this time the Dukes of Burgundy were famous for their splendid table service. Indeed, the craze for domestic display in this line became so excessive, that in 1356 King John of France prohibited the further production of such elaborate pieces, "gold or silver plate, vases, or silver jewelry, of more than one mark of gold, or silver, excepting for churches." This edict, however, accomplished little, and was constantly evaded. Many large pieces of silver made in the period of the Renaissance were made simply with a view to standing about as ornaments. Cellini alludes to certain vases which had been ordered from him, saying that "they are called ewers, and they are placed upon buffets for the purpose of display."

The salt cellar was always a *piece de resistance,* and stood in the centre of the table. It was often in the form of a ship in silver. A book entitled "Ffor to serve a Lorde," in 1500, directs the "boteler" or "panter," to bring forth the principal salt, and to "set the saler in the myddys of the table." Persons helped themselves to salt with "a clene kniffe." The seats of honour were all about the salt, while those of less degree were at the lower end of the table, and were designated as "below the salt." The silver ship was commonly an immense piece of plate, containing the napkin, goblet, and knife and spoon of the host, besides being the receptacle for the spices and salt. Through fear of poison, the precaution was taken of keeping it covered. This ship was

often known as the "nef," and frequently had a name, as if it were the family yacht! One is recorded as having been named the "Tyger," while a nef belonging to the Duke of Orleans was called the "Porquepy," meaning porcupine. One of the historic salts, in another form, is the "Huntsman's salt," and is kept at All Soul's College, Oxford. The figure of a huntsman, bears upon its head a rock crystal box with a lid. About the feet of this figure are several tiny animals and human beings, so that it looks as if the intent had been to picture some gigantic legendary hunter — a sort of Gulliver of the chase.

The table was often furnished also with a fountain, in which drinking-water was kept, and upon which either stood or hung cups or goblets. These fountains were often of fantastic shapes, and usually enamelled. One is described as representing a dragon on a tree top, and another a castle on a hill, with a convenient tap at some point for drawing off the water.

The London City Companies are rich in their possessions of valuable plate. Some of the cups are especially beautiful. The Worshipful Company of Skinners owns some curious loving cups, emblematic of the names of the donors. There are five Cockayne Loving Cups, made in the form of cocks, with their tail feathers spread up to form the handles. The heads have to be removed for drinking. These cups were bequeathed by William Cockayne, in 1598. Another cup is in the form of a peacock, walking with two little chicks of minute pro-

portions on either side of the parent bird. This is inscribed, "The gift of Mary the daughter of Richard Robinson, and wife to Thomas Smith and James Peacock, Skinners." Whether the good lady were a bigamist or took her husbands in rotation, does not transpire.

An interesting cup is owned by the Vintners in London, called the Milkmaid. The figure of a milkmaid, in laced bodice, holds above her head a small cup on pivots, so that it finds its level when the figure is inverted, as is the case when the cup is used, the petticoat of the milkmaid forming the real goblet. It is constructed on the same principle as the German figures of court ladies holding up cups, which are often seen to-day, made on the old pattern. The cups in the case of this milkmaid are both filled with wine, and it is quite difficult to drink from the larger cup without spilling from the small swinging cup which is then below the other. Every member is expected to perform this feat as a sort of initiation. It dates from 1658.

One of the most beautiful Corporation cups is at Norwich, where it is known as the "Petersen" cup. It is shaped like a very thick and squat chalice, and around its top is a wide border of decorative lettering, bearing the inscription, "THE + MOST + HERE + OF. + IS + DUNNE + BY + PETER + PETERSON + ." This craftsman was a Norwich silversmith of the sixteenth century, very famous in his day, and a remarkably chaste designer as well. A beautiful ivory cup twelve inches high, set in silver gilt, called the Grace Cup, of

Thomas à Becket, is inscribed around the top band, "*Vinum tuum bibe cum gaudio.*" It has a hall-mark

THE "MILKMAID CUP"

of a Lombardic letter H, signifying the year 1445. It is decorated by cherubs, roses, thistles, and crosses, relieved with garnets and pearls. On another flat band is the inscription: "*Sobrii estote,*" and on the cover,

in Roman capitals, "*Ferare God.*" It is owned by the Howard family, of Corby.

Tankards were sometimes made of such crude materials as leather (like the "lether bottel" of history), and of wood. In fact, the inventory of a certain small church in the year 1566 tells of a "penny tankard of wood," which was used as a "holy water stock."

An extravagant design, of a period really later than we are supposed to deal with in this book, is a curious cup at Barber's and Surgeon's Hall, known as the Royal Oak. It is built to suggest an oak tree, — a naturalistic trunk, with its roots visible, supporting the cup, which is in the form of a semi-conventional tree, covered with leaves, detached acorns swinging free on rings from the sides at intervals!

Richard Redgrave called attention to some of the absurdities of the exotic work of his day in England. "Rachel at a well, under an imitative palm tree," he remarks, "draws, not water, but ink; a grotto of oyster shells with children beside it, contains . . . an ink vessel; the milk pail on a maiden's head contains, not goat's milk, as the animal by her side would lead you to suppose, but a taper!"

One great secret of good design in metal is to avoid imitating fragile things in a strong material. The stalk of a flower or leaf, for instance, if made to do duty in silver to support a heavy cup or vase, is a very disagreeable thing to contemplate; if the article were really

what it is represented, it would break under the strain. While there should be no deliberate perversion of Nature's forms, there should be no naturalistic imitation.

CHAPTER II

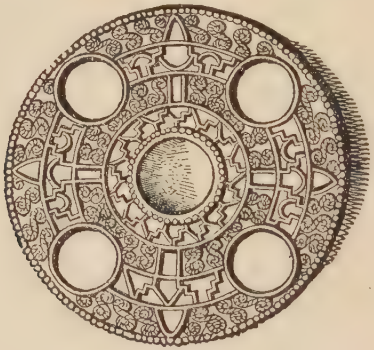
JEWELRY AND PRECIOUS STONES

We are told that the word "jewel" has come by degrees from Latin, through French, to its present form; it commenced as a "gaudium" (joy), and progressed through "jouel" and "joyau" to the familiar word as we have it.

The first objects to be made in the form of personal adornment were necklaces: this may be easily understood, for in certain savage lands the necklace formed, and still forms, the chief feature in feminine attire. In this little treatise, however, we cannot deal with anything so primitive or so early; we must not even take time to consider the exquisite Greek and Roman jewelry. Amongst the earliest mediæval jewels we will study the Anglo-Saxon and the Byzantine.

Anglo-Saxon and Irish jewelry is famous for delicate filigree, fine enamels, and flat garnets used in a very decorative way. Niello was also employed to some extent. It is easy, in looking from the Bell of St. Patrick to the Book of Kells, to see how the illuminators were influenced by the goldsmiths in early times, — in Celtic and Anglo-Saxon work.

The earliest forms of brooches were the annular, — that is, a long pin with a hinged ring at its head for ornament, and the "penannular," or pin with a broken circle at its head. Through the opening in the circle the pin returns, and then with a twist of the ring, it is held more firmly in the material. Of these two forms are notable examples in the Arbutus brooch and the celebrated Tara brooch. The Tara brooch is a perfect



SAXON BROOCH

museum in itself of the jeweller's art. It is ornamented with enamel, with jewels set in silver, amber, scroll filigree, fine chains, Celtic tracery, moulded glass — nearly every branch of the art is represented in this one treasure, which was found quite by accident near Drogheda, in 1850, a landslide having exposed the buried spot where it had lain for centuries. As many as seventy-six different kinds of workmanship are to be detected on this curious relic.

At a great Exhibition at Ironmonger's Hall in 1861

there was shown a leaden fibula, quite a dainty piece of personal ornament, in Anglo-Saxon taste, decorated with a moulded spiral meander. It was found in the

THE TARA BROOCH

Thames in 1855, and there are only three other similar brooches of lead known to exist.

Of the Celtic brooches Scott speaks:

> " . . . the brooch of burning gold
> That clasps the chieftain's mantle fold,
> Wrought and chased with rare device,
> Studded fair with gems of price."

One of the most remarkable pieces of Celtic jewelled work is the bell of St. Patrick, which measures over ten inches in height. This saint is associated with several bells: one, called the Broken Bell of St. Brigid, he used on his last crusade against the demons of Ireland; it is said that when he found his adversaries specially unyielding, he flung the bell with all his might into the thickest of their ranks, so that they fled precipitately into the sea, leaving the island free from their aggressions for seven years, seven months, and seven days.

One of St. Patrick's bells is known, in Celtic, as the "white toned," while another is called the "black sounding." This is an early and curious instance of the sub-conscious association of the qualities of sound with those of colour. Viollet le Duc tells how a blind man was asked if he knew what the colour red was. He replied, "Yes: red is the sound of the trumpet." And the great architect himself, when a child, was carried by his nurse into the Cathedral of Notre Dame in Paris, where he cried with terror because he fancied that the various organ notes which he heard were being hurled at him by the stained glass windows, each one represented by a different colour in the glass!

But the most famous bell in connection with St. Patrick is the one known by his own name and brought with his relics by Columbkille only sixty years after the saint's death. The outer case is an exceedingly rich example of Celtic work. On a ground of brass, fine gold

and silver filigree is applied, in curious interlaces and knots, and it is set with several jewels, some of large size, in green, blue, and dull red. In the front are two large tallow-cut Irish diamonds, and a third was apparently set in a place which is now vacant. On the back of the bell appears a Celtic inscription in most decorative lettering all about the edge; the literal translation of this is: "A prayer for Donnell O'Lochlain, through whom this bell shrine was made; and for Donnell, the successor of Patrick, with whom it was made; and for Cahalan O'Mulhollan, the keeper of the bell, and for Cudilig O'Immainen, with his sons, who covered it." Donald O'Lochlain was monarch of Ireland in 1083. Donald the successor of Patrick was the Abbot of Armagh, from 1091 to 1105. The others were evidently the craftsmen who worked on the shrine. In many interlaces, especially on the sides, there may be traced intricate patterns formed of serpents, but as nearly all Celtic work is similarly ornamented, there is probably nothing personal in their use in connection with the relic of St. Patrick! Patrick brought quite a bevy of workmen into Ireland about 440: some were smiths, Mac Cecht, Laebhan, and Fontchan, who were turned at once upon making of bells, while some other skilled artificers, Fairill and Tassach, made patens and chalices. St. Bridget, too, had a famous goldsmith in her train, one Bishop Coula.

The pectoral cross of St. Cuthbert of Lindisfarne is now to be seen in Durham. It was buried with the

saint, and was discovered with his body. The four arms are of equal length, and not very heavy in proportion. It is of gold, made in the seventh century, and is set with garnets, a very large one in the centre, one somewhat smaller at the ends of the arms, where the lines widen considerably, and with smaller ones continuously between.

Among the many jewels which decorated the shrine of Thomas à Becket at Canterbury was a stone "with an angell of gold poynting thereunto," which was a gift from the King of France, who had had it "made into a ring and wore it on his thumb." Other stones described as being on this shrine were sumptuous, the whole being damascened with gold wire, and "in the midst of the gold, rings; or cameos of sculptured agates, carnelians, and onyx stones." A visitor to Canterbury in 1500 writes: "Everything is left far behind by a ruby not larger than a man's thumb nail, which is set to the right of the altar. The church is rather dark, and when we went to see it the sun was nearly gone down, and the weather was cloudy, yet we saw the ruby as well as if it had been in my hand. They say it was a gift of the King of France."

Possessions of one kind were often converted into another, according to changing fashions. Philippa of Lancaster had a gold collar made "out of two bottles and a turret," in 1380.

Mediæval rosaries were generally composed of beads of coral or carnelian, and often of gold and pearls as

well. Marco Polo tells of a unique rosary worn by the King of Malabar; one hundred and four large pearls, with occasional rubies of great price, composed the string. Marco Polo adds: "He has to say one hundred and four prayers to his idols every morning and evening."

In the possession of the Shah of Persia is a gold casket studded with emeralds, which is said to have the magic power of rendering the owner invisible as long as he remains celibate. I fancy that this is a safe claim, for the tradition is not likely to be put to the proof in the case of a Shah! Probably there has never been an opportunity of testing the miraculous powers of the stones.

The inventory of Lord Lisle contains many interesting side lights on the jewelry of the period: "a hawthorne of gold, with twenty diamonds;" "a little tower of gold," and "a pair of beads of gold, with tassels." Filigree or chain work was termed "perry." In old papers such as inventories, registers, and the like, there are frequent mentions of buttons of "gold and perry;" in 1372 Aline Gerbuge received "one little circle of gold and perry, emeralds and balasses." Clasps and brooches were used much in the fourteenth century. They were often called "ouches," and were usually of jewelled gold. One, an image of St. George, was given by the Black Prince to John of Gaunt. The Duchess of Bretagne had among other brooches one with a white griffin, a balas ruby on its shoulder, six sapphires

around it, and then six balasses, and twelve groups of pearls with diamonds.

Brooches were frequently worn by being stuck in the hat. In a curious letter from James I. to his son, the monarch writes: "I send for your wearing the Three Brethren" (evidently a group of three stones) " . . . but newly set . . . which I wolde wish you to weare alone in your hat, with a Littel black feather." To his favourite Buckingham he also sends a diamond, saying that his son will lend him also "an anker" in all probability; but he adds: "If my Babee will not spare the anker from his Mistress, he may well lend thee his round brooch to weare, and yett he shall have jewels to weare in his hat for three grate dayes."

In the fourteenth and fifteenth centuries the women wore nets in their hair, composed of gold threads adorned with pearls. At first two small long rolls by the temples were confined in these nets: later, the whole back hair was gathered into a large circular arrangement. These nets were called frets — "a fret of pearls" was considered a sufficient legacy for a duchess to leave to her daughter.

In the constant resetting and changing of jewels, many important mediæval specimens, not to mention exquisite vessels and church furniture, were melted down and done over by Benvenuto Cellini, especially at the time that Pope Clement was besieged at the Castle of St. Angelo.

Probably the most colossal jewel of ancient times was

the Peacock Throne of Delhi. It was in the form of two spread tails of peacocks, composed entirely of sapphires, emeralds and topazes, feather by feather and eye by eye, set so as to touch each other. A parrot of life size carved from a single emerald, stood between the peacocks.

In 1161 the throne of the Emperor in Constantinople is described by Benjamin of Tudela: "Of gold ornamented with precious stones. A golden crown hangs over it, suspended on a chain of the same material, the length of which exactly admits the Emperor to sit under it. The crown is ornamented with precious stones of inestimable value. Such is the lustre of these diamonds that even without any other light, they illumine the room in which they are kept."

The greatest mediæval jeweller was St. Eloi of Limoges. His history is an interesting one, and his achievement and rise in life was very remarkable in the period in which he lived. Eloi was a workman in Limoges, as a youth, under the famous Abbo, in the sixth century; there he learned the craft of a goldsmith. He was such a splendid artisan that he soon received commissions for extensive works on his own account. King Clothaire II. ordered from him a golden throne, and supplied the gold which was to be used. To the astonishment of all, Eloi presented the king with *two* golden thrones (although it is difficult to imagine what a king would do with duplicate thrones!), and immediately it was noised abroad that the goldsmith Eloi was possessed

of miraculous powers, since, out of gold sufficient for one throne, he had constructed two. People of a more practical turn found out that Eloi had learned the art of alloying the gold, so as to make it do double duty.

A great many examples of St. Eloi's work might have been seen in France until the Revolution in 1792, especially at the Abbey of St. Denis. A ring made by him, with which St. Godiberte was married to Christ, according to the custom of mediæval saints, was preserved at Noyon until 1793, when it disappeared in the Revolution. The Chronicle says of Eloi: "He made for the king a great numer of gold vesses enriched with precious stones, and he worked incessantly, seated with his servant Thillo, a Saxon by birth, who followed the lessons of his master." St. Eloi founded two institutions for goldsmithing: one for the production of domestic and secular plate, and the other for ecclesiastical work exclusively, so that no worker in profane lines should handle the sacred vessels. The secular branch was situated near the dwelling of Eloi, in the Cité itself, and was known as "St. Eloi's Enclosure." When a fire burned them out of house and shelter, they removed to a suburban quarter, which soon became known in its turn, as the "Clôture St. Eloi." The religious branch of the establishment was presided over by the aforesaid Thillo, and was the Abbey of Solignac, near Limoges. This school was inaugurated in 631.

While Eloi was working at the court of King Clothaire II., St. Ouen was there as well. The two youths struck

up a close friendship, and afterwards Ouen became his biographer. His description of Eloi's personal appearance is worth quoting, to show the sort of figure a mediæval saint sometimes cut before canonization. "He was tall, with a ruddy face, his hair and beard curly. His hands well made, and his fingers long, his face full of angelic sweetness. . . . At first he wore habits covered with pearls and precious stones; he had also belts sewn with pearls. His dress was of linen encrusted with gold, and the edges of his tunic trimmed with gold embroidery. Indeed, his clothing was very costly, and some of his dresses were of silk. Such was his exterior in his first period at court, and he dressed thus to avoid singularity; but under this garment he wore a rough sack cloth, and later on, he disposed of all his ornaments to relieve the distressed; and he might be seen with only a cord round his waist and common clothes. Sometimes the king, seeing him thus divested of his rich clothing, would take off his own cloak and girdle and give them to him, saying: 'It is not suitable that those who dwell for the world should be richly clad, and that those who despoil themselves for Christ should be without glory.'"

Among the numerous virtues of St. Eloi was that of a consistent carrying out of his real beliefs and theories, whether men might consider him quixotic or not. He was strongly opposed to the institution of slavery. In those days it would have been futile to preach actual emancipation. The times were not ripe. But St. Eloi

did all that he could for the cause of freedom by investing most of his money in slaves, and then setting them at liberty. Sometimes he would "corner" a whole slave market, buying as many as thirty to a hundred at a time. Some of these manumitted persons became his own faithful followers: some entered the religious life, and others devoted their talents to their benefactor, and worked in his studios for the furthering of art in the Church.

He once played a trick upon the king. He requested the gift of a town, in order, as he explained, that he might there build a ladder by which they might both reach heaven. The king, in the rather credulous fashion of the times, granted his request, and waited to see the ladder. St. Eloi promptly built a monastery. If the monarch did not choose to avail himself of this species of ladder, — surely it was no fault of the builder!

St. Ouen and St. Eloi were consecrated bishops on the same day, May 14, St. Ouen to the Bishopric of Rouen, and Eloi to the See of Noyon. He made a great hunt for the body of St. Quentin, which had been unfortunately mislaid, having been buried in the neighbourhood of Noyon; he turned up every available spot of ground around, within and beneath the church, until he found a skeleton in a tomb, with some iron nails. This he proclaimed to be the sacred body, for the legend was that St. Quentin had been martyred by having nails driven into his head! Although it was quite evident to others that these were coffin nails, still St. Eloi

insisted upon regarding his discovery as genuine, and they began diligently to dismember the remains for distribution among the churches. As they were pulling one of the teeth, a drop of blood was seen to follow it, which miracle was hailed by St. Eloi as the one proof wanting. Eloi had the genuine artistic temperament and his religious zeal was much influenced by his æsthetic nature. He once preached an excellent sermon, still preserved, against superstition. He inveighed particularly against the use of charms and incantations. But he had his own little streak of superstition in spite of the fact that he fulminated against it. When he had committed some fault, after confession, he used to hang bags of relics in his room, and watch them for a sign of forgiveness. When one of these would turn oily, or begin to affect the surrounding atmosphere peculiarly, he would consider it a sign of the forgiveness of heaven. It seems to us to-day as if he might have looked to his own relic bags before condemning the ignorant.

St. Eloi died in 659, and was himself distributed to the faithful in quite a wholesale way. One arm is in Paris. He was canonized both for his holy life and for his great zeal in art. He was buried in a silver coffin adorned with gold, and his tomb was said to work miracles like the shrine of Becket. Indeed, Becket himself was pretty dressy in the matter of jewels; when he travelled to Paris, the simple Frenchmen exclaimed: "What a wonderful personage the King of England must be, if his chancellor can travel in such state!"

There are various legends about St. Eloi. It is told that a certain horse once behaved in a very obstreperous way while being shod; St. Eloi calmly cut off the animal's leg, and fixed the shoe quietly in position, and then replaced the leg, which grew into place again immediately, to the pardonable astonishment of all beholders, not to mention the horse.

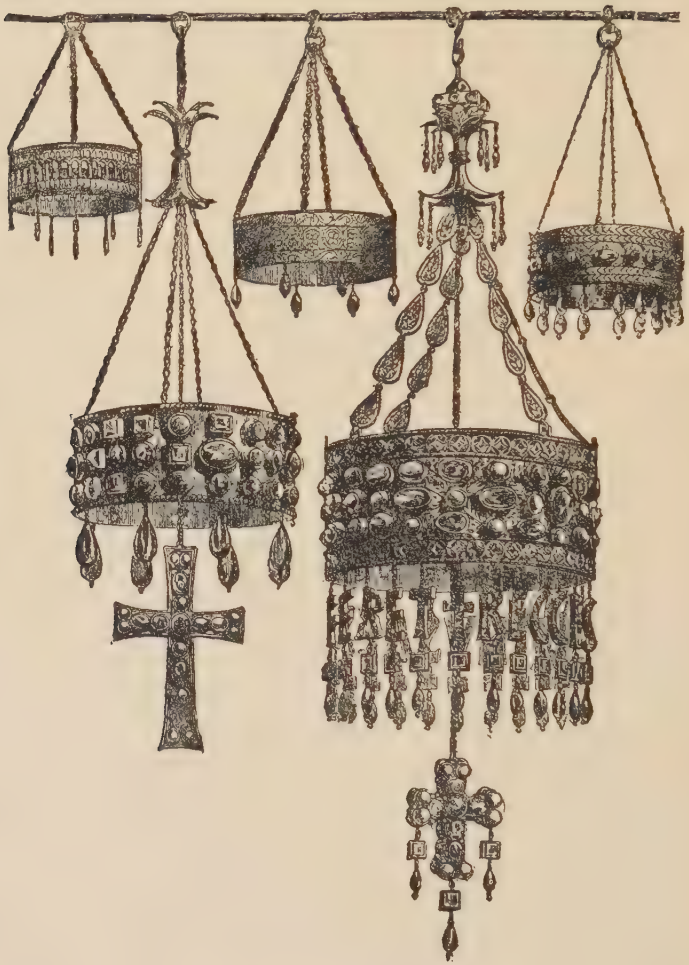
St. Eloi was also employed to coin the currency of Dagobert and Clovis II., and examples of these coins may now be seen, as authentic records of the style of his work. A century after his death the monasteries which he had founded were still in operation, and Charlemagne's crown and sword are very possibly the result of St. Eloi's teachings to his followers.

While the monasteries undoubtedly controlled most of the art education of the early middle ages, there were also laymen who devoted themselves to these pursuits. John de Garlande, a famous teacher in the University of Paris, wrote, in the eleventh century, a "Dictionarius" dealing with various arts. In this interesting work he describes the trades of the moneyers (who controlled the mint), the coining of gold and silver into currency (for the making of coin in those days was permitted by individuals), the clasp makers, the makers of cups or hanaps, jewellers and harness makers, and other artificers. John de Garlande was English, born about the middle of the twelfth century, and was educated in Oxford. In the early thirteenth century he became associated with the University, and when

Simon de Montfort was slain in 1218, at Toulouse, John was at the University of Toulouse, where he was made a professor, and stayed three years, returning then to Paris. He died about the middle of the thirteenth century. He was celebrated chiefly for his Dictionarius, a work on the various arts and crafts of France, and for a poem, " De Triumphis Ecclesiæ."

During the Middle Ages votive crowns were often presented to churches; among these a few are specially famous. The crowns, studded with jewels, were suspended before the altar by jewelled chains, and often a sort of fringe of jewelled letters was hung from the rim, forming an inscription. The votive crown of King Suinthila, in Madrid, is among the most ornate of these. It is the finest specimen in the noted " Treasure of Guerrazzar," which was discovered by peasants turning up the soil near Toledo; the crowns, of which there were many, date from about the seventh century, and are sumptuous with precious stones. The workmanship is not that of a barbarous nation, though it has the fascinating irregularities of the Byzantine style.

Of the delightful work of the fifth and sixth centuries there are scarcely any examples in Italy. The so-called Iron Crown of Monza is one of the few early Lombard treasures. This crown has within it a narrow band of iron, said to be a nail of the True Cross; but the crown, as it meets the eye, is anything but iron, being one of the most superb specimens of jewelled golden workmanship, as fine as those in the Treasure of Guerrazzar.



THE TREASURE OF GUERRAZZAR

The crown of King Alfred the Great is mentioned in an old inventory as being of "gould wire worke, sett

with slight stones, and two little bells." A diadem is described by William of Malmsbury, "so precious with jewels, that the splendour . . . threw sparks of light so strongly on the beholder, that the more steadfastly any person endeavoured to gaze, so much the more he was dazzled, and compelled to avert the eyes!" In 1382 a circlet crown was purchased for Queen Anne of Bohemia, being set with a large sapphire, a balas, and four large pearls with a diamond in the centre.

The Cathedral at Amiens owns what is supposed to be the head of John the Baptist, enshrined in a gilt cup of silver, and with bands of jewelled work. The head is set upon a platter of gilded and jewelled silver, covered with a disc of rock crystal. The whole, though ancient, is enclosed in a modern shrine. The legend of the preservation of the Baptist's head is that Herodias, afraid that the saint might be miraculously restored to life if his head and body were laid in the same grave, decided to hide the head until this danger was past. Furtively, she concealed the relic for a time, and then it was buried in Herod's palace. It was there opportunely discovered by some monks in the fourth century. This "invention of the head" (the word being interpreted according to the credulity of the reader) resulted in its removal to Emesa, where it was exhibited in 453. In 753 Marcellus, the Abbot of Emesa, had a vision by means of which he re-discovered (or re-invented) the head, which had in some way been lost sight of. Following the guidance of his dream, he repaired to a

grotto, and proceeded to exhume the long-suffering relic. After many other similar and rather disconnected episodes, it finally came into possession of the Bishop of Amiens in 1206.

A great calamity in early times was the loss of all the valuables of King John of England. Between Lincolnshire and Norfolk the royal cortège was crossing the Wash: the jewels were all swept away. Crown and all were thus lost, in 1216.

Several crowns have been through vicissitudes. When Richard III. died, on Bosworth Field, his crown was secured by a soldier and hidden in a bush. Sir Reginald de Bray discovered it, and restored it to its rightful place. But to balance such cases several of the queens have brought to the national treasury their own crowns. In 1340 Edward III. pawned even the queen's jewels to raise money for fighting France.

The same inventory makes mention of certain treasures deposited at Westminster: the values are attached to each of these, crowns, plates, bracelets, and so forth. Also, with commendable zeal, a list was kept of other articles stored in an iron chest, among which are the items, "one liver coloured silk robe, very old, and worth nothing," and "an old combe of horne, worth nothing." A frivolous scene is described by Wood, when the notorious Republican, Marten, had access to the treasure stored in Westminster. Some of the wits of the period assembled in the treasury, and took out of the iron chest several of its jewels, a crown, sceptre,

and robes; these they put upon the merry poet, George Withers, "who, being thus crowned and royally arrayed, first marched about the room with a stately gait, and afterwards, with a thousand ridiculous and apish actions, exposed the sacred ornaments to contempt and laughter." No doubt the "olde comb" played a suitable part in these pranks, — perhaps it may even have served as orchestra.

One Sir Henry Mildmay, in 1649, was responsible for dreadful vandalism, under the Puritan régime. Among other acts which he countenanced was the destruction and sale of the wonderful Crown of King Alfred, to which allusion has just been made. In the Will of the Earl of Pembroke, in 1650, is this clause showing how unpopular Sir Henry had become: "Because I threatened Sir Henry Mildmay, but did not beat him, I give £50 to the footman who cudgelled him. Item, my will is that the said Sir Harry shall not meddle with my jewels. I knew him . . . when he handled the Crown jewels, . . . for which reason I now name him the Knave of Diamonds."

Jewelled arms and trappings became very rich in the fifteenth century. Pius II. writes of the German armour: "What shall I say of the neck chains of the men, and the bridles of the horses, which are made of the purest gold; and of the spears and scabbards which are covered with jewels?" Spurs were also set with jewels, and often damascened with gold, and ornamented with appropriate mottoes.

An inventory of the jewelled cups and reliquaries of Queen Jeanne of Navarre, about 1570, reads like a museum. She had various gold and jewelled dishes for banquets; one jewel is described as "Item, a demoiselle of gold, represented as riding upon a horse, of mother of pearl, standing upon a platform of gold, enriched with ten rubies, six turquoises and three fine pearls." Another item is, "A fine rock crystal set in gold, enriched with three rubies, three emeralds, and a large sapphire, set transparently, the whole suspended from a small gold chain."

It is time now to speak of the actual precious stones themselves, which apart from their various settings are, after all, the real jewels. According to Cellini there are only four precious stones: he says they are made "by the four elements," ruby by fire, sapphire by air, emerald by earth, and diamond by water. It irritated him to have any one claim others as precious stones. "I have a thing or two to say," he remarks, "in order not to scandalize a certain class of men who call themselves jewellers, but may be better likened to hucksters, or linen drapers, pawn brokers, or grocers . . . with a maximum of credit and a minimum of brains . . . these dunderheads . . . wag their arrogant tongues at me and cry, 'How about the chrysophrase, or the jacynth, how about the aqua marine, nay more, how about the garnet, the vermeil, the crysolite, the plasura, the amethyst? Ain't these all stones and all different?' Yes, and why the devil don't you add pearls, too, among

the jewels, ain't they fish bones?" Thus he classes the stones together, adding that the balas, though light in colour, is a ruby, and the topaz a sapphire. "It is of the same hardness, and though of a different colour, must be classified with the sapphire: what better classification do you want? hasn't the air got its sun?"

Cellini always set the coloured stones in a bezel or closed box of gold, with a foil behind them. He tells an amusing story of a ruby which he once set on a bit of frayed silk instead of on the customary foil. The result happened to be most brilliant. The jewellers asked him what kind of foil he had used, and he replied that he had employed no foil. Then they exclaimed that he must have tinted it, which was against all laws of jewelry. Again Benvenuto swore that he had neither used foil, nor had he done anything forbidden or unprofessional to the stone. "At this the jeweller got a little nasty, and used strong language," says Cellini. They then offered to pay well for the information if Cellini would inform them by what means he had obtained so remarkably a lustre. Benvenuto, expressing himself indifferent to pay, but "much honoured in thus being able to teach his teachers," opened the setting and displayed his secret, and all parted excellent friends.

Even so early as the thirteenth century, the jewellers of Paris had become notorious for producing artificial jewels. Among their laws was one which stipulated that "the jeweller was not to dye the amethyst, or other false stones, nor mount them in gold leaf nor other

colour, nor mix them with rubies, emeralds, or other precious stones, except as a crystal simply without mounting or dyeing."

One day Cellini had found a ruby which he believed to be set dishonestly, that is, a very pale stone with a thick coating of dragon's blood smeared on its back. When he took it to some of his favourite "dunderheads," they were sure that he was mistaken, saying that it had been set by a noted jeweller, and could not be an imposition. So Benvenuto immediately removed the stone from its setting, thereby exposing the fraud. "Then might that ruby have been likened to the crow which tricked itself out in the feathers of the peacock," observes Cellini, adding that he advised these "old fossils in the art" to provide themselves with better eyes than they then *wore*. "I could not resist saying this," chuckles Benvenuto, "because all three of them wore great gig-lamps on their noses; whereupon they all three gasped at each other, shrugged their shoulders, and with God's blessing, made off." Cellini tells of a Milanese jeweller who concocted a great emerald, by applying a very thin layer of the real stone upon a large bit of green glass: he says that the King of England bought it, and that the fraud was not discovered for many years.

A commission was once given Cellini to make a magnificent crucifix for a gift from the Pope to Emperor Charles V., but, as he expresses it, "I was hindered from finishing it by certain beasts who had the vantage of the Pope's ear," but when these evil whisperers had so

"gammoned the Pope," that he was dissuaded from the crucifix, the Pope ordered Cellini to make a magnificent Breviary instead, so that the "job" still remained in his hands.

Giovanni Pisano made some translucid enamels for the decorations of the high altar in Florence, and also a jewelled clasp to embellish the robe of a statue of the Virgin.

Ghiberti was not above turning his attention to goldsmithing, and in 1428 made a seal for Giovanni de Medici, a cope-button and mitre for Pope Martin V., and a gold mitre with precious stones weighing five and a half pounds, for Pope Eugene IV.

Diamonds were originally cut two at a time, one cutting the other, whence has sprung the adage, "diamond cut diamond." Cutting in facets was thus the natural treatment of this gem. The practise originated in India. Two diamonds rubbing against each other systematically will in time form a facet on each. In 1475 it was discovered by Louis de Berghem that diamonds could be cut by their own dust.

It is an interesting fact in connection with the Kohinoor that in India there had always been a legend that its owner should be the ruler of India. Probably the ancient Hindoos among whom this legend developed would be astonished to know that, although the great stone is now the property of the English, the tradition is still unbroken!

Marco Polo alludes to the treasures brought from the

Isle of Ormus, as "spices, pearls, precious stones, cloth of gold and silver, elephant's teeth, and all other precious things from India." In Balaxiam he says are found "ballasses and other precious stones of great value. No man, on pain of death, dare either dig such stones or carry them out of the country, for all those stones are the King's. Other mountains also in this province yield stones called lapis lazuli, whereof the best azure is made. The like is not found in the world. These mines also yield silver, brass, and lead." He speaks of the natives as wearing gold and silver earrings, "with pearls and other stones artificially wrought in them." In a certain river, too, are found jasper and chalcedons.

Marco Polo's account of how diamonds are obtained is ingenuous in its reckless defiance of fact. He says that in the mountains "there are certain great deep valleys to the bottom of which there is no access. Wherefore the men who go in search of the diamonds take with them pieces of meat," which they throw into this deep valley. He relates that the eagles, when they see these pieces of meat, fly down and get them, and when they return, they settle on the higher rocks, when the men raise a shout, and drive them off. After the eagles have thus been driven away, "the men recover the pieces of meat, and find them full of diamonds, which have stuck to them. "For the abundance of diamonds down in the depths," continues Marco Polo, naïvely "is astonishing; but nobody can get down, and if one could, it would be only to be incontinently de-

voured by the serpents which are so rife there." A further account proceeds thus: "The diamonds are so scattered and dispersed in the earth, and lie so thin, that in the most plentiful mines it is rare to find one in digging; . . . they are frequently enclosed in clods, . . . some . . . have the earth so fixed about them that till they grind them on a rough stone with sand, they cannot move it sufficiently to discover they are transparent or . . . to know them from other stones. At the first opening of the mine, the unskilful labourers sometimes, to try what they have found, lay them on a great stone, and, striking them one with another, to their costly experience, discover that they have broken a diamond. . . . They fill a cistern with water, soaking therein as much of the earth they dig out of the mine as it can hold at one time, breaking the clods, picking out the great stones, and stirring it with shovels . . . then they open a vent, letting out the foul water, and supply it with clean, till the earthy substance be all washed away, and only the gravelly one remains at the bottom." A process of sifting and drying is then described, and the gravel is all spread out to be examined, "they never examine the stuff they have washed but between the hours of ten and three, lest any cloud, by interposing, intercept the brisk beams of the sun, which they hold very necessary to assist them in their search, the diamonds constantly reflecting them when they shine on them, rendering themselves thereby the more conspicuous."

The earliest diamond-cutter is frequently mentioned as Louis de Berquem de Bruges, in 1476. But Laborde finds earlier records of the art of cutting this gem: there was in Paris a diamond-cutter named Herman, in 1407. The diamond cutters of Paris were quite numerous in that year, and lived in a special district known as "la Couraric, where reside the workers in diamonds and other stones."

Finger rings almost deserve a history to themselves, for their forms and styles are legion. Rings were often made of glass in the eleventh century. Theophilus tells in a graphic and interesting manner how they were constructed. He recommends the use of a bar of iron, as thick as one's finger, set in a wooden handle, "as a lance is joined in its pike." There should also be a large piece of wood, at the worker's right hand, "the thickness of an arm, dug into the ground, and reaching to the top of the window." On the left of the furnace a little clay trench is to be provided. "Then, the glass being cooked," one is admonished to take the little iron in the wooden handle, dip it into the molten glass, and pick up a small portion, and "prick it into the wood, that the glass may be pierced through, and instantly warm it in the flame, and strike it twice upon the wood, that the glass may be dilated, and with quickness revolve your hand with the same iron;" when the ring is thus formed, it is to be quickly thrown into the trench. Theophilus adds, "If you wish to vary your rings with other colours . . . take . . . glass of another

colour, surrounding the glass of the ring with it in the manner of a thread . . . you can also place upon the ring glass of another kind, as a gem, and warm it in the fire that it may adhere." One can almost see these rings from this accurate description of their manufacture.

The old Coronation Ring, "the wedding ring of England," was a gold ring with a single fine balas ruby; the pious tradition had it that this ring was given to Edward the Confessor by a beggar, who was really St. John the Evangelist in masquerade! The palace where this unique event occurred was thereupon named Have-ring-at-Bower. The Stuart kings all wore this ring and until it came to George IV., with other Stuart bequests, it never left the royal Stuart line.

Edward I. owned a sapphire ring made by St. Dunstan. Dunstan was an industrious art spirit, being reported by William of Malmsbury as "taking great delight in music, painting, and engraving." In the "Ancren Riwle," a book of directions for the cloistered life of women, nuns are forbidden to wear "ne ring ne brooche," and to deny themselves other personal adornments.

Archbishops seem to have possessed numerous rings in ancient times. In the romance of "Sir Degrevant" a couplet alludes to:

> "Archbishops with rings
> More than fifteen."

Episcopal rings were originally made of sapphires, said to be typical of the cold austerity of the life of the wearer. Later, however, the carbuncle became a

favourite, which was supposed to suggest fiery zeal for the faith. Perhaps the compromise of the customary amethyst, which is now most popularly used, for Episcopal rings, being a combination of the blue and the red, may typify a blending of more human qualities!

In an old will of 1529, a ring was left as a bequest to

HEBREW RING

a relative, described as "a table diamond set with black aniell, meate for my little finger."

The accompanying illustration represents a Hebrew ring, surmounted by a little mosque, and having the inscription "Mazul Toub" (God be with you, or Good luck to you).

It was the custom in Elizabethan times to wear "posie rings" (or poesie rings) in which inscriptions were cut, such as, "Let likinge Laste," "Remember the ♥ that is in pain," or, "God saw fit this knot to knit," and the like. These posie rings are so called

because of the little poetical sentiments associated with them. They were often used as engagement rings, and sometimes as wedding rings. In an old Saxon ring is the inscription, "Eanred made me and Ethred owns me." One of the mottoes in an old ring is pathetic; evidently it was worn by an invalid, who was trying to be patient, "Quant Dieu Plera melior sera." (When it shall please God, I shall be better.) And in a small ring set with a tiny diamond, "This sparke shall grow." An agreeable and favourite "posie" was

"The love is true
That I O U."

A motto in a ring owned by Lady Cathcart was inscribed on the occasion of her fourth marriage; with laudable ambition, she observes,

"If I survive,
I will have five."

It is to these "posie rings" that Shakespeare has reference when he makes Jaques say to Orlando: "You are full of pretty answers: have you not been acquainted with goldsmiths' wives, and conned them out of rings?"

In the Isle of Man there was once a law that any girl who had been wronged by a man had the right to redress herself in one of three ways: she was given a sword, a rope and a ring, and she could decide whether she would behead him, hang him, or marry him. Tradition

states that the ring was almost invariably the weapon chosen by the lady.

Superstition has ordained that certain stones should cure certain evils: the blood-stone was of very general efficacy, it was claimed, and the opal, when folded in a bay leaf, had the power of rendering the owner invisible. Some stones, especially the turquoise, turned pale or became deeper in hue according to the state of the owner's health; the owner of a diamond was invincible; the possession of an agate made a man amiable, and eloquent. Whoever wore an amethyst was proof against intoxication, while a jacynth superinduced sleep in cases of insomnia. Bed linen was often embroidered, and set with bits of jacynth, and there is even a record of diamonds having been used in the decoration of sheets! Another entertaining instance of credulity was the use of "cramp rings." These were rings blessed by the queen, and supposed to cure all manner of cramps, just as the king's touch was supposed to cure scrofula. When a queen died, the demand for these rings became a panic: no more could be produced, until a new queen was crowned. After the beheading of Anne Boleyn, Husee writes to his patroness: "Your ladyship shall receive of this bearer nine cramp rings of silver. John Williams says he never had so few of gold as this year!"

A stone engraved with the figure of a hare was believed to be valuable in exorcising the devil. That of a dog preserved the owner from "dropsy or pestilence;" a

versatile ring indeed! An old French book speaks of an engraved stone with the image of Pegasus being particularly healthful for warriors; it was said to give them "boldness and swiftness in flight." These two virtues sound a trifle incompatible!

The turquoise was supposed to be especially sympathetic. According to Dr. Donne:

> "A compassionate turquoise, that doth tell
> By looking pale, the owner is not well,"

must have been a very sensitive stone.

There was a physician in the fourth century who was famous for his cures of colic and biliousness by means of an iron ring engraved with an exorcism requesting the bile to go and take possession of a bird! There was also a superstition that fits could be cured by a ring made of "sacrament money." The sufferer was obliged to stand at the church door, begging a penny from every unmarried man who passed in or out; this was given to a silversmith, who exchanged it at the cathedral for "sacrament money," out of which he made a ring. If this ring was worn by the afflicted person, the seizures were said to cease.

The superstition concerning the jewel in the toad's head was a strangely persistent one: it is difficult to imagine what real foundation there could ever have been for the idea. An old writer gives directions for getting this stone, which the toad in his life time seems to have guarded most carefully. "A rare good way to get

the stone out of a toad," he says, "is to put a . . . toad . . . into an earthen pot: put the same into an ant's hillocke, and cover the same with earth, which toad . . . the ants will eat, so that the bones . . . and stone will be left in the pot." Boethius once stayed up all night watching a toad in the hope that it might relinquish its treasure; but he complained that nothing resulted "to gratify the great pangs of his whole night's restlessness."

An old Irish legend says that "the stone Adamant in the land of India grows no colder in any wind or snow or ice; there is no heat in it under burning sods" (this is such an Hibernian touch! The peat fuel was the Celtic idea of a heating system), "nothing is broken from it by striking of axes and hammers; there is one thing only breaks that stone, the blood of the Lamb at the Mass; and every king that has taken that stone in his right hand before going into battle, has always gained the victory." There is also a superstition regarding the stone Hibien, which is said to flame like a fiery candle in the darkness, "it spills out poison before it in a vessel; every snake that comes near to it or crosses it dies on the moment." Another stone revered in Irish legend is the Stone of Istien, which is found "in the brains of dragons after their deaths," and a still more capable jewel seems to be the Stone of Fanes, within which it is claimed that the sun, moon, and twelve stars are to be seen. "In the hearts of the dragons it is always found that make their journey under the sea. No one having it in his hand can tell any lie until he has

put it from him; no race or army could bring it into a house where there is one that has made way with his father. At the hour of matins it gives out sweet music that there is not the like of under heaven."

Bartholomew, the mediæval scientist, tells narratives of the magical action of the sapphire. "The sapphire is a precious stone," he says, "and is blue in colour, most like to heaven in fair weather and clear, and is best among precious stones, and most apt and able to fingers of kings. And if thou put an addercop in a box, and hold a very sapphire of India at the mouth of the box any while, by virtue thereof the addercop is overcome and dieth, as it were suddenly. And this same I have seen proved oft in many and divers places." Possibly the fact that the addercop is so infrequent an invader of our modern life accounts for the fact that we are left inert upon reading so surprising a statement; or possibly our incredulity dominates our awe.

The art of the lapidary, or science of glyptics, is a most interesting study, and it would be a mistake not to consider it for a few moments on its technical side. It is very ancient as an art. In Ecclesiasticus the wise Son of Sirach alludes to craftsmen "that cut and grave seals, and are diligent to make great variety, and give themselves to counterfeit imagery, and watch to finish a work."

Theophilus on glyptics is too delightfully naïve for us to resist quoting his remarks. "Crystal," he announces, "which is water hardened into ice, and the

ice of great age hardened into stone, is trimmed and polished in this manner." He then directs the use of sandstone and emery, chiefly used by rubbing, as one might infer, to polish the stones, probably *en cabochon* as was the method in his time; this style of finish on a gem was called "tallow cutting." But when one wishes to sculp crystal, Theophilus informs one: "Take a goat of two or three years . . . make an opening between his breast and stomach, in the position of the heart, and lay in the crystal, so that it may lie in its blood until it grow warm . . . cut what you please in it as long as the heat lasts." Just how many goats were required to the finishing of a sculptured crystal would be determined by the elaboration of the design! Unfortunately Animal Rescue Leagues had not invaded the monasteries of the eleventh century.

In sculpturing glass, the ingenuous Theophilus is quite at his best. "Artists!" he exclaims, "who wish to engrave glass in a beautiful manner, I now can teach you, as I have myself made trial. I have sought the gross worms which the plough turns up in the ground, and the art necessary in these things also bid me procure vinegar, and the warm blood of a lusty goat, which I was careful to place under the roof for a short time, bound with a strong ivy plant. After this I infused the worms and vinegar with the warm blood and I anointed the whole clearly shining vessel; which being done, I essayed to sculp the glass with the hard stone called the Pyrites." What a pity good Theophilus had not begun

with the pyrites, when he would probably have made the further discovery that his worms and goats could have been spared.

In the polishing of precious stones, he is quite sane in his directions. "Procure a marble slab, very smooth," he enjoins, "and act as useful art points out to you." In other words, rub it until it is smooth!

Bartholomew Anglicus is as entertaining as Theophilus regarding crystal. "Men trowe that it is of snow or ice made hard in many years," he observes complacently. "This stone set in the sun taketh fire, insomuch if dry tow be put thereto, it setteth the tow on fire," and again, quoting Gregory on Ezekiel I., he adds, "water is of itself fleeting, but by strength of cold it is turned and made stedfast crystal."

Of small specimens of sculptured crystal some little dark purple beads carved into the semblance of human faces may be seen on the Tara brooch; while also on the same brooch occur little purple daisies.

The Cup of the Ptolemies, a celebrated onyx cup in Paris, is over fifteen inches in circumference, and is a fine specimen of early lapidary's work. It was presented in the ninth century by Charles the Bald to St. Denis, and was always used to contain the consecrated wine when Queens of France were crowned. Henry II. once pawned it to a Jew when he was hard up, and in 1804 it was stolen and the old gold and jewelled setting removed. It was found again in Holland, and was remounted within a century.

In the Treasury of St. Mark's in Venice are many valuable examples of carved stones, made into cups, flagons, and the like. These were brought from Constantinople in 1204, when the city was captured by the Venetians. Constantinople was the only place where glyptics were understood and practised upon large hard stones in the early Middle Ages. The Greek artists who took refuge in Italy at that time brought the art with them. There are thirty-two of these Byzantine chalices in St. Mark's. Usually the mountings are of gold, and precious stones. There are also two beautiful cruets of agate, elaborately ornamented, but carved in curious curving forms requiring skill of a superior order. Two other rock crystal cruets are superbly carved, probably by Oriental workmen, however, as they are not Byzantine in their decorations. One of them was originally a vase, and, indeed, is still, for the long gold neck has no connection with the inside; the handle is also of gold, both these adjuncts seem to have been regarded as simply ornament. The other cruet is carved elaborately with leopards, the first and taller one showing monsters and foliate forms. Around the neck of the lower of these rock crystal cruets is an inscription, praying for God's blessing on the "Imam Aziz Billah," who was reigning in Egypt in 980. This cruet has a gold stand. The handle is cleverly cut in the same piece of crystal, but a band of gold is carried down it to give it extra strength. The forming of this handle in connection with the rest of the work is a veritable *tour de force,* and we should have

CRYSTAL FLAGONS, ST. MARK'S, VENICE

grave doubts whether Theophilus with his goats could have managed it!

Vasari speaks with characteristic enthusiasm of the glyptics of the Greeks, "whose works in that manner may be called divine." But, as he continues, "many and very many years passed over during which the art was lost". . . . until in the days of Lorenzo di Medici the fashion for cameos and intaglios revived.

In the Guild of the Masters of Wood and Stone in Florence, the cameo-cutters found a place, nevertheless it seems fitting to include them at this point among jewellers, instead of among carvers.

The Italians certainly succeeded in performing feats of lapidary art at a later period. Vasari mentions two cups ordered by Duke Cosmo, one cut out of a piece of lapis lazuli, and the other from an enormous heliotrope, and a crystal galley with gold rigging was made by the Sanachi brothers. In the Green Vaults in Dresden may be seen numerous specimens of valuable but hideous products of this class. In the seventeenth century, the art had run its course, and gave place to a taste for cameos, which in its turn was run into the ground.

Cameo-cutting and gem engraving has always been accomplished partly by means of a drill; the deepest point to be reached in the cutting would be punctured first, and then the surfaces cut, chipped, and ground away until the desired level was attained. This is on much the same principle as that adopted by marble cutters to-day.

Mr. Cyril Davenport's definition of a cameo is quite satisfactory : "A small sculpture executed in low relief upon some substance precious either for its beauty, rarity, or hardness." Cameos are usually cut in onyx, the different layers and stratifications of colour being cut away at different depths, so that the sculpture appears to be rendered in one colour on another, and sometimes three or four layers are recognized, so that a shaded effect is obtained. Certain pearly shells are sometimes used for cameo cutting; these were popular in Italy in the fifteenth century. In Greece and Rome the art of cameo cutting was brought to astonishing perfection, the sardonyx being frequently used, and often cut in five different coloured layers. An enormous antique cameo, measuring over nine inches across, may be seen in Vienna; it represents the Apotheosis of Augustus, and the scene is cut in two rows of spirited figures. It dates from the first century A. D. It is in dark brown and white.

Among the treasures of the art-loving Henry III. was a "great cameo," in a golden case; it was worth two hundred pounds. This cameo was supposed to compete with a celebrated work at Ste. Chapelle in Paris, which had been brought by Emperor Baldwin II. from Constantinople.

In Paris was a flourishing guild, the "Lapidaries, Jewel Cutters, and Engravers of Cameos and Hard Stones," in the thirteenth century; glass cutters were included in this body for a time, but after 1584 the revised laws did not permit of any imitative work, so glass

SARDONYX CUP, 11TH CENTURY, VENICE

cutters were no longer allowed to join the society. The French work was rather coarse compared with the classic examples.

The celebrated Portland Vase is a glass cameo, of enormous proportions, and a work of the first century, in blue and white. There is a quaint legend connected with the famous stone cameo known as the Vase of St. Martin, which is as follows: when St. Martin visited the Martyr's Field at Agaune, he prayed for some time, and then stuck his knife into the ground, and was excusably astonished at seeing blood flow forth. Recognizing at once that he was in the presence of the miraculous (which was almost second nature to mediæval saints), he began sedulously to collect the precious fluid in a couple of receptacles with which he had had the foresight to provide himself. The two vases, however, were soon filled, and yet the mystical ruby spring continued. At his wit's ends, he prayed again for guidance, and presently an angel descended, with a vase of fine cameo workmanship, in which the remainder of the sacred fluid was preserved. This vase is an onyx, beautifully cut, with fine figures, and is over eight inches high, mounted at foot and collar with Byzantine gold and jewelled work. The subject appears to be an episode during the Siege of Troy, — a whimsical selection of design for an angel.

Some apparently mediæval cameos are in reality antiques recut with Christian characters. A Hercules could easily be turned into a David, while Perseus and Medusa could be transformed quickly into a David and

Goliath. There are two examples of cameos of the Virgin which had commenced their careers, one as a Leda, and the other as Venus! While a St. John had originally figured as Jupiter with his eagle!

In the Renaissance there was great revival of all branches of gem cutting, and cameos began to improve, and to resemble once more their classical ancestors. Indeed, their resemblance was rather academic, and there was little originality in design. Like most of the Renaissance arts, it was a reversion instead of a new creation. Technically, however, the work was a triumph. The craftsmen were not satisfied until they had quite outdone the ancients, and they felt obliged to increase the depth of the cutting, in order to show how cleverly they could coerce the material; they even under-cut in some cases. During the Medicean period of Italian art, cameos were cut in most fantastic forms; sometimes a negro head would be introduced simply to exhibit a dark stratum in the onyx, and was quite without beauty. One of the Florentine lapidaries was known as Giovanni of the Carnelians, and another as Domenico of the Cameos. This latter carved a portrait of Ludovico il Moro on a red balas ruby, in intaglio. Nicolo Avanzi is reported as having carved a lapis lazuli " three fingers broad " into the scene of the Nativity. Matteo dal Nassaro, a son of a shoemaker in Verona, developed extraordinary talent in gem cutting.

An exotic production is a crucifix cut in a blood-stone by Matteo del Nassaro, where the artist has so utilized

the possibilities of this stone that he has made the red patches to come in suitable places to portray drops of blood. Matteo worked also in Paris, in 1531, where he formed a school and craft shop, and where he was afterwards made Engraver of the Mint.

Vasari tells of an ingenious piece of work by Matteo, where he has carved a chalcedony into a head of Dejanira, with the skin of the lion about it. He says, "In the stone there was a vein of red colour, and here the artist has made the skin turn over . . . and he has represented this skin with such exactitude that the spectator imagines himself to behold it newly torn from the animal! Of another mark he has availed himself, for the hair, and the white parts he has taken for the face and breast." Matteo was an independent spirit: when a baron once tried to beat him down in his price for a gem, he refused to take a small sum for it, but asked the baron to accept it as a gift. When this offer was refused, and the nobleman insisted upon giving a low price, Matteo deliberately took his hammer and shattered the cameo into pieces at a single blow. His must have been an unhappy life. Vasari says that he " took a wife in France and became the father of children, but they were so entirely dissimilar to himself, that he had but little satisfaction from them."

Another famous lapidary was Valerio Vicentino, who carved a set of crystals which were made into a casket for Pope Clement VII., while for Paul III. he made a carved crystal cross and chandelier.

Vasari reserves his highest commendation for Casati, called "el Greco," "by whom every other artist is surpassed in the grace and perfection as well as in the universality of his productions." . . . "Nay, Michelangelo himself, looking at them one day while Giovanni Vasari was present, remarked that the hour for the death of the art had arrived, for it was not possible that better work could be seen!" Michelangelo proved a prophet, in this case surely, for the decadence followed swiftly.

CHAPTER III

ENAMEL

"Oh, thou discreetest of readers," says Benvenuto Cellini, "marvel not that I have given so much time to writing about all this," and we feel like making the same apology for devoting a whole chapter to enamel; but this branch of the goldsmith's art has so many subdivisions, that it cries for space.

The word Enamel is derived from various sources. The Greek language has contributed "maltha," to melt; the German "schmeltz," the old French "esmail," and the Italian "smalta," all meaning about the same thing, and suggesting the one quality which is inseparable from enamel of all nations and of all ages, — its fusibility. For it is always employed in a fluid state, and always must be.

Enamel is a type of glass product reduced to powder, and then melted by fervent heat into a liquid condition, which, when it has hardened, returns to its vitreous state.

Enamel has been used from very early times. The first allusion to it is by Philostratus, in the year 200 A. D., where he described the process as applied to the armour of his day. "The barbarians of the regions of the ocean,"

he writes, " are skilled in fusing colours on heated brass, which become as hard as stone, and render the ornament thus produced durable."

Enamels have special characteristics in different periods: in the late tenth century, of Byzantium and Germany; in the eleventh century, of Italy; while most of the later work owes its leading characteristics to the French, although it continued to be produced in the other countries.

It helps one to understand the differences and similarities in enamelled work, to observe the three general forms in which it is employed; these are, the cloisonné, the champlevé, and the painted enamel. There are many subdivisions of these classifications, but for our purpose these three will suffice.

In cloisonné, the only manner known to the Greek, Anglo-Saxon, and Celtic craftsmen, the pattern is made upon a gold ground, by little upright wire lines, like filigree, the enamel is fused into all the little compartments thus formed, each bit being one clear colour, on the principle of a mosaic. The colours were always rather clear and crude, but are the more sincere and decorative on this account, the worker recognizing frankly the limitation of the material; and the gold outline harmonizes the whole, as it does in any form of art work. A cloisonné enamel is practically a mosaic, in which the separations consist of narrow bands of metal instead of plaster. The enamel was applied in its powdered state on the gold, and then fused all together in the furnace.

GERMAN ENAMEL, 13TH CENTURY

Champlevé enamel has somewhat the same effect as the cloisonné, but the end is attained by different means. The outline is left in metal, and the whole background is cut away and sunk, thus making the hollow chambers for the vitreous paste, in one piece, instead of by means of wires. Often it is not easy to determine which method has been employed to produce a given work.

Painted enamels were not employed in the earliest times, but came to perfection in the Renaissance. A translucent enamel prevailed especially in Italy: a low relief was made with the graver on gold or silver; fine raised lines were left here and there, to separate the colours. Therefore, where the cutting was deepest, the enamel ran thicker, and consequently darker in colour, giving the effect of shading, while in reality only one tint had been used. The powdered and moistened enamel was spread evenly with a spatula over the whole surface, and allowed to stand in the kiln until it liquefied. Another form of enamel was used to colour gold work in relief, with a permanent coating of transparent colour. Sometimes this colour was applied in several coats, one upon another, and the features painted with a later touch. Much enamelled jewelry was made in this way, figures, dragons, and animal forms, being among the most familiar. But an actual enamel painting — on the principle of a picture, was rendered in still another way. In preparing the ground for enamel painting, there are two things which have been essentially considered in all times and countries. The enamel ground

ENAMELLED GOLD BOOK COVER, SIENA

must be more fusible than the metal on which it is placed, or else both would melt together. Also the enamel with which the final decoration is executed must be more easily made fluid than the harder enamel on which it is laid. In fact, each coat must of necessity be a trifle more fusible than the preceding one. A very accurate knowledge is necessary to execute such a work, as will be readily understood.

In examining historic examples of enamel, the curious oval set in gold, known as the Alfred Jewel, is among the first which come within our province. It was found in Somersetshire, and probably dates from about the year 878. It consists of an enamelled figure covered by a thick crystal, set in filigree, around the edge of which runs the inscription, "AELFRED MEC REHT GAVUR CAN" (Alfred ordered me to be wrought). King Alfred was a great patron of the arts. Of such Anglo-Saxon work, an ancient poem in the Exeter Book testifies:

> "For one a wondrous skill
> in goldsmith's art is provided
> Full oft he decorates and well adorns
> A powerful king's nobles."

Celtic enamels are interesting, being usually set in the spaces among the rambling interlaces of this school of goldsmithing. The Cross of Cong is among the most famous specimens of this work, and also the bosses on the Ardagh Chalice.

The monk Theophilus describes the process of enamelling in a graphic manner. He directs his workmen to

"adapt their pieces of gold in all the settings in which the glass gems are to be placed" (by which we see that he teaches the cloisonné method). "Cut small bands of exceedingly thin gold," he continues, "in which you will bend and fashion whatever work you wish to make in enamel, whether circles, knots, or small flowers, or birds, or animals, or figures." He then admonishes one to solder it with greatest care, two or three times, until all the pieces adhere firmly to the plate. To prepare the powdered glass Theophilus advises placing a piece of glass in the fire, and, when it has become glowing, "throw it into a copper vessel in which there is water, and it instantly flies into small fragments which you break with a round pestle until quite fine. The next step is to put the powder in its destined cloison, and to place the whole jewel upon a thin piece of iron, over which fits a cover to protect the enamel from the coals, and put it in the most intensely hot part of the fire." Theophilus recommends that this little iron cover be "perforated finely all over so that the holes may be inside flat and wide, and outside finer and rough, in order to stop the cinders if by chance they should fall upon it." This process of firing may have to be repeated several times, until the enamel fills every space evenly. Then follows the tedious task of burnishing; setting the jewel in a strong bit of wax, you are told to rub it on a "smooth hard bone," until it is polished well and evenly.

Benvenuto Cellini recommends a little paper sponge

to be used in smoothing the face of enamels. "Take a clean nice piece of paper," he writes, "and chew it well between your teeth, — that is, if you have got any — I could not do it, because I've none left!"

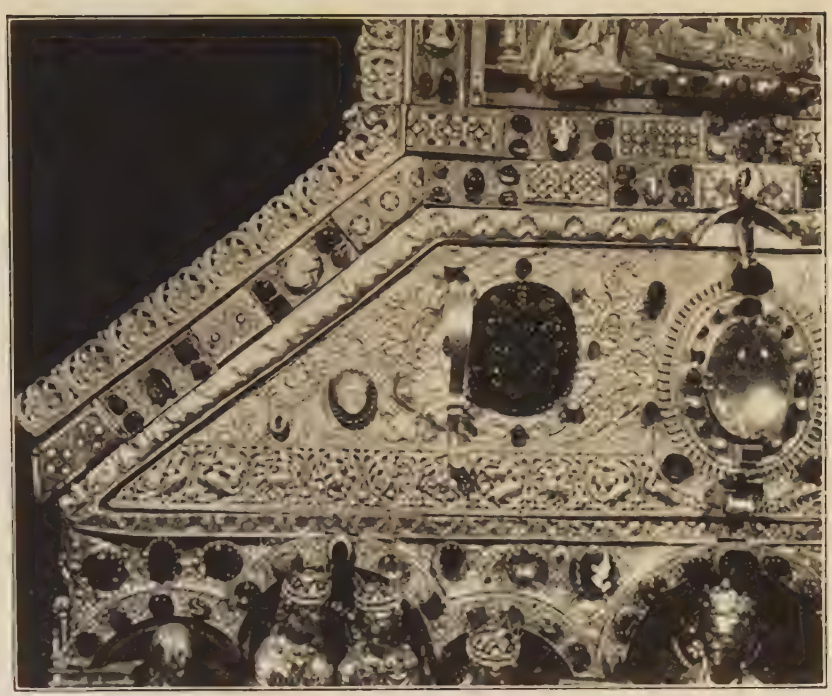
A celebrated piece of goldsmith's work of the tenth century is the Pala d'Oro at St. Mark's in Venice. This is a gold altar piece or reredos, about eleven feet long and seven feet high, richly wrought in the Byzantine style, and set with enamels and precious stones. The peculiar quality of the surface of the gold still lingers in the memory; it looks almost liquid, and suggests the appearance of metal in a fluid state. On its wonderful divisions and arched compartments are no less than twelve hundred pearls, and twelve hundred other precious gems. These stones surround the openings in which are placed the very beautiful enamel figures of saints and sacred personages. St. Michael occupies a prominent position; the figure is partly in relief. The largest medallion contains the figure of Christ in glory, and in other compartments may be seen even such secular personages as the Empress Irene, and the Doge who was ruling Venice at the time this altar piece was put in place — the year 1106. The Pala d'Oro is worked in the champlevé process, the ground having been cut away to receive the melted enamel. It is undoubtedly a Byzantine work; the Doge Orseolo, in 976, ordered it to be made by the enamellers of Constantinople. It was not finished for nearly two centuries, arriving in Venice in 1102, when the portrait of the Doge then

reigning was added to it. The Byzantine range of colours was copious; they had white, two reds, bright and dark, dark and light blue, green, violet, yellow, flesh tint, and black. These tints were always fused separately, one in each cloison: the Greeks in this period never tried to blend colours, and more than one tint never appears in a compartment. The enlarging and improving of the Pala d'Oro was carried on by Greek artists in Venice in 1105. It was twice altered after that, once in the fourteenth century for Dandolo, and thus the pure Byzantine type is somewhat invaded by the Gothic spirit. The restorations in 1345 were presided over by Gianmaria Boninsegna.

One of the most noted specimens of enamel work is on the Crown of Charlemagne,[1] which is a magnificent structure of eight plaques of gold, joined by hinges, and surmounted by a cross in the front, and an arch crossing the whole like a rib from back to front. The other cross rib has been lost, but originally the crown was arched by two ribs at the top. The plates of gold are ornamented, one with jewels, and filigree, and the next with a large figure in enamel. These figures are similar to those occurring on the Pala d'Oro.

The Shrine of the Three Kings in Cologne is decorated both with cloisonné and champlevé enamels, — an unusual circumstance. In Aix la Chapelle the shrine of Charlemagne is extremely like it in some respects, but the only enamels are in champlevé. Good examples

[1] See Fig. 1.



DETAIL; SHRINE OF THE THREE KINGS, COLOGNE

of translucent enamels in relief may be seen on several of the reliquaries at Aix la Chapelle.

Theophilus gives us directions for making a very ornate chalice with handles, richly embossed and ornamented with niello. Another paragraph instructs us how to make a golden chalice decorated with precious stones and pearls. It would be interesting as a modern problem, to follow minutely his directions, and to build the actual chalice described in the eleventh century. To apply the gems and pearls Theophilus directs us to "cut pieces like straps," which you "bend together to make small settings of them, by which the stones may be enclosed." These little settings, with their stones, are to be fixed with flour paste in their places and then warmed over the coals until they adhere. This sounds a little risky, but we fancy he must have succeeded, and, indeed, it seems to have been the usual way of setting stones in the early centuries. Filigree flowers are then to be added, and the whole soldered into place in a most primitive manner, banking the coals "in the shape of a small furnace, so that the coals may lie thickly around the circumference," and when the solder "flows about as if undulating," the artist is to sprinkle it quickly with water, and take it out of the fire.

Niello, with which the chalice of Theophilus is also to be enriched, stands in relation to the more beautiful art of enamel, as drawing does to painting, and it is well to consider it here. Both the Romans and the

Anglo-Saxons understood its use. It has been employed as an art ever since the sixth and seventh centuries. The term "niello" probably is an abbreviation of the Italian word "nigellus" (black); the art is that of inlaying an engraved surface with a black paste, which is thoroughly durable and hard as the metal itself in most cases, the only difference being in flexibility; if the metal plate is bent, the niello will crack and flake off.

Niello is more than simply a drawing on metal. That would come under the head of engraving. A graver is used to cut out the design on the surface of the silver, which is simply a polished plane. When the drawing has been thus incised, a black enamel, made of lead, lamp black, and other substances, is filled into the interstices, and rubbed in; when quite dry and hard, this is polished. The result is a black enamel which is then fused into the silver, so that the whole is one surface, and the decoration becomes part of the original plate. The process as described by Theophilus is as follows: "Compose the niello in this manner; take pure silver and divide it into equal parts, adding to it a third part of pure copper, and taking yellow sulphur, break it very small . . . and when you have liquefied the silver with the copper, stir it evenly with charcoal, and instantly pour into it lead and sulphur." This niello paste is then made into a stick, and heated until "it glows: then with another forceps, long and thin, hold the niello and rub it all over the places which you wish to make black, until the drawing be full, and

FINIGUERRA'S PAX, FLORENCE

carrying it away from the fire, make it smooth with a flat file, until the silver appear." When Theophilus has finished his directions, he adds: "And take great care that no further work is required." To polish the niello, he directs us to "pumice it with a damp stone, until it is made everywhere bright."

There are various accounts of how Finiguerra, who was a worker in niello in Florence, discovered by its means the art of steel engraving. It is probably only a legendary narrative, but it is always told as one of the apocryphal stories when the origin of printing is discussed, and may not be out of place here. Maso Finiguerra, a Florentine, had just engraved the plate for his famous niello, a Pax which is now to be seen in the Bargello, and had filled it in with the fluid enamel, which was standing waiting until it should be dry. Then, according to some authorities, a piece of paper blew upon the damp surface, on which, after carefully removing it, Maso found his design was impressed; others state that it was through the servant's laying a damp cloth upon it, that the principle of printing from an incised plate was suggested. At any rate, Finiguerra took the hint, it is said, and made an impression on paper, rolling it, as one would do with an etching or engraving.

In the Silver Chamber in the Pitti Palace is a Pax, by Mantegna, made in the same way as that by Finiguerra, and bearing comparison with it. The engraving is most delicate, and it is difficult to imagine a better

specimen of the art. The Madonna and Child, seated in an arbour, occupy the centre of the composition, which is framed with jewelled bands, the frame being divided into sixteen compartments, in each of which is seen a tiny and exquisite picture. The work on the arbour of roses in which the Virgin sits is of remarkable quality, as well as the small birds and animals introduced into the composition. In the background, St. Christopher is seen crossing the river with the Christ Child on his back, while in the water a fish and a swan are visible.

In Valencia in Spain may be seen a chalice which has been supposed to be the very cup in which Our Saviour instituted the Communion. The cup itself is of sardonyx, and of fine form. The base is made of the same stone, and handles and bands are of gold, adorned with black enamel. Pearls, rubies, sapphires, and emeralds are set in profusion about the stem and base. It is a work of the epoch of Imperial Rome.

In England, one of the most perfect specimens of fine, close work, is the Wilton Chalice, dating from the twelfth century. The Warwick Bowl, too, is of very delicate workmanship, and both are covered with minute scenes and figures. One of the most splendid treasures in this line is the crozier of William Wyckham, now in Oxford. It is strictly national in style.

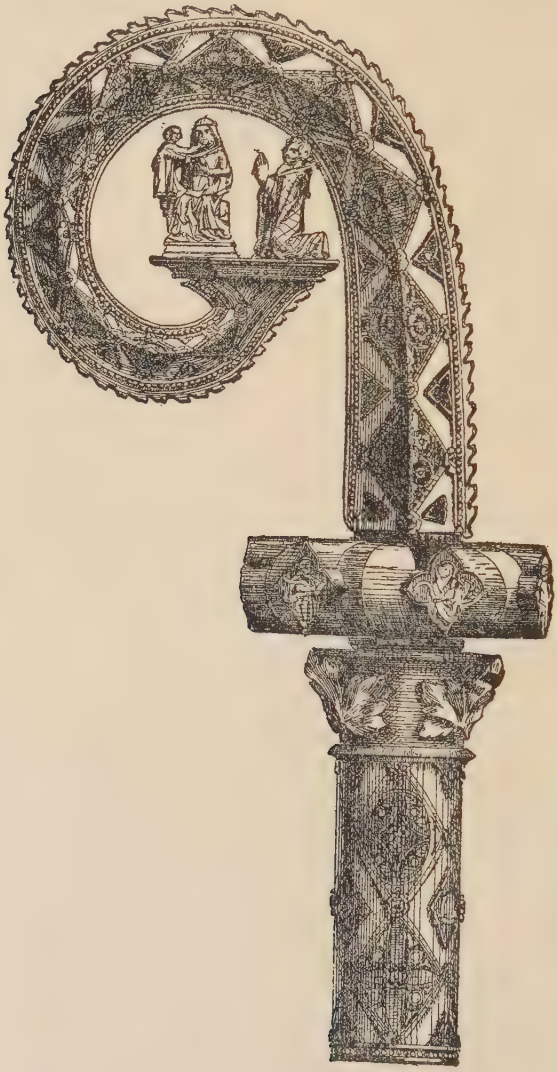
The agreement entered into between Henry VII., and Abbot Islip, for the building of the chapel of that king in Westminster, is extant. It is bound in velvet and bossed with enamels. It is an interesting fact that some

of the enamels are in the Italian style, while others are evidently English.

Limoges was the most famous centre of the art of enamelling in the twelfth century, the work being known as Opus de Limogia, or Labor Limogiae. Limoges was a Roman settlement, and enamels were made there as early as the time of Philostratus. Champlevé enamel, while it was not produced among the Greeks, nor even in Byzantine work, was almost invariable at Limoges in the earlier days: one can readily tell the difference between a Byzantine enamel and an early Limoges enamel by this test, when there is otherwise sufficient similarity of design to warrant the question.

Some of the most beautiful enamels of Limoges were executed in what was called basse-taille, or transparent enamel on gold grounds, which had been first prepared in bas-relief. Champlevé enamel was often used on copper, for such things as pastoral staves, reliquaries, and larger bits of church furniture. The enamel used on copper is usually opaque, and somewhat coarser in texture than that employed on gold or silver. Owing to their additional toughness, these specimens are usually in perfect preservation. In 1327, Guillaume de Harie, in his will, bequeathed 800 francs to make two high tombs, to be covered with Limoges enamel, one for himself, and the other for "Blanche d'Avange, my dear companion."

An interesting form of cloisonné enamel was that known as "plique à jour," which consists of a filigree



ITALIAN ENAMELLED CROZIER, 14TH CENTURY

setting with the enamel in transparent bits, without any metallic background. It is still made in many parts of the world. When held to the light it resembles minute arrangements of stained glass. Francis I. showed Benvenuto Cellini a wonderful bowl of this description, and asked Cellini if he could possibly imagine how the result was attained. "Sacred Majesty," replied Benvenuto, "I can tell you exactly how it is done," and he proceeded to explain to the astonished courtiers how the bowl was constructed, bit by bit, inside a bowl of thin iron lined with clay. The wires were fastened in place with glue until the design was complete, and then the enamel was put in place, the whole being fused together at the soldering. The clay form to which all this temporarily adhered was then removed, and the work, transparent and ephemeral, was ready to stand alone.

King John gave to the city of Lynn a magnificent cup of gold, enamelled, with figures of courtiers of the period, engaged in the sports of hawking and hare-hunting, and dressed in the costume of the king's reign. "King John gave to the Corporation a rich cup and cover," says Mackarel, "weighing seventy-three ounces, which is preserved to this day and upon all public occasions and entertainments used with some uncommon ceremonies at drinking the health of the King or Queen, and whoever goes to visit the Mayor must drink out of this cup, which contains a full pint." The colours of the enamels which are used as flat values

in backgrounds to the little silver figures, are dark rose, clear blue, and soft green. The dresses of the persons are also picked out in the same colours, varied from the grounds. This cup was drawn by John Carter in 1787, he having had much trouble in getting permission to study the original for that purpose! He took letters of introduction to the Corporation, but they appeared to suspect him of some imposture; at first they refused to entertain his proposal at all, but after several applications, he was allowed to have the original before him, in a closed room, in company with a person appointed by them but at his expense, to watch him and see that no harm came to the precious cup!

The translucent enamels on relief were made a great deal by the Italian goldsmiths; Vasari alludes to this class of work as "a species of painting united with sculpture."

As enamel came by degrees to be used as if it were paint, one of the chief charms of the art died. The limits of this art were its strength, and simple straightforward use of the material was its best expression. The method of making a painted enamel was as follows. The design was laid out with a stilus on a copper plate. Then a flux of plain enamel was fused on to the surface, all over it. The drawing was then made again, on the same lines, in a dark medium, and the colours were laid flat inside the dark lines, accepting these lines as if they had been wires around cloisons. All painted enamels had to be enamelled on the back as well, to

prevent warping in the furnace when the shrinkage took place. After each layer of colour the whole plate was fired. In the fifteenth century these enamels were popular and retained some semblance of respect for the limitation of material; later, greater facility led, as it does in most of the arts, to a decadence in taste, and florid pictures, with as many colours and shadows as would appear in an oil painting, resulted. Here and there, where special metallic brilliancy was desired, a leaf of gold was laid under the colour of some transparent enamel, giving a decorative lustre. These bits of brilliant metal were known as *paillons*.

When Limoges had finally become the royal manufactory of enamels, under Francis I., the head of the works was Leonard Limousin, created "Valet de Chambre du Roi," to show his sovereign's appreciation. Remarkable examples of the work of Leonard Limousin, executed in 1547, are the large figures of the Apostles to be seen in the church of St. Pierre, at Chartres, where they are ranged about the apsidal chapel. They are painted enamels on copper sheets twenty-four by eleven inches, and are in a wonderful state of preservation. They were the gift of Henri II. to Diàne de Poictiers and were brought to Chartres from the Chateau d'Anet. These enamels, being on a white ground, have something the effect of paintings in Faience; the colouring is delicate, and they have occasional gold touches.

A treatise by William of Essex directs the artist how to prepare a plate for a painted enamel, such as were

used in miniature work. He says "To make a plate for the artist to paint upon: a piece of gold or copper being chosen, of requisite dimensions, and varying from about $\frac{1}{18}$ to $\frac{1}{16}$ of an inch in thickness, is covered with pulverized enamel, and passed through the fire, until it becomes of a white heat; another coating of enamel is then added, and the plate again fired; afterwards a thin layer of a substance called flux is laid upon the surface of the enamel, and the plate undergoes the action of heat for a third time. It is now ready for the painter to commence his picture upon."

Leonard Limousin painted from 1532 until 1574. He used the process as described by William of Essex (which afterwards became very popular for miniaturists), and also composed veritable pictures of his own design. It is out of our province to trace the history of the Limoges enamellers after this period.

CHAPTER IV

OTHER METALS

THE "perils that environ men that meddle with cold iron" are many; but those who attempt to control hot iron are also to be respected, when they achieve an artistic result with this unsympathetic metal, which by nature is entirely lacking in charm, in colour and texture, and depends more upon a proper application of design than any other, in order to overcome the obstacles to beauty with which it is beset.

"Rust hath corrupted," unfortunately, many interesting antiquities in iron, so that only a limited number of specimens of this metal have come down to us from very early times; one of the earliest in England is a grave-stone of cast metal, of the date 1350: it is decorated with a cross, and has the epitaph, "Pray for the soul of Joan Collins."

The process of casting iron was as follows. The moulds were made of a sandy substance, composed of a mixture of brick dust, loam, plaster, and charcoal. A bed of this sand was made, and into it was pressed a wooden or metal pattern. When this was removed, the imprint remained in the sand. Liquid metal was

run into the mould so formed, and would cool into the desired shape. As with a plaster cast, it was necessary to employ two such beds, the sand being firmly held in boxes, if the object was to be rounded, and then the two halves thus made were put together. Flat objects, such as fire-backs, could be run into a single mould.

Bartholomew, in his book "On the Properties of Things," makes certain statements about iron which are interesting: "Though iron cometh of the earth, yet it is most hard and sad, and therefore with beating and smiting it suppresseth and dilateth all other metal, and maketh it stretch on length and on breadth." This is the key-note to the work of a blacksmith: it is what he has done from the first, and is still doing.

In Spain there have been iron mines ever since the days when Pliny wrote and alluded to them, but there are few samples in that country to lead us to regard it as æsthetic in its purpose until the fifteenth century.

For tempering iron instruments, there are recipes given by the monk Theophilus, but they are unfortunately quite unquotable, being treated with mediæval frankness of expression.

St. Dunstan was the patron of goldsmiths and blacksmiths. He was born in 925, and lived in Glastonbury, where he became a monk rather early in life. He not only worked in metal, but was a good musician and a great scholar, in fact a genuine rounded man of culture. He built an organ, no doubt something like the one which Theophilus describes, which, Bede tells us,

being fitted with "brass pipes, filled with air from the bellows, uttered a grand and most sweet melody." Dunstan was a favourite at court, in the reign of King Edmund. Enemies were plentiful, however, and they spread the report that Dunstan evoked demoniac aid in his almost magical work in its many departments. It was said that occasionally the evil spirits were too aggravating, and that in such cases Dunstan would stand no nonsense. There is an old verse:

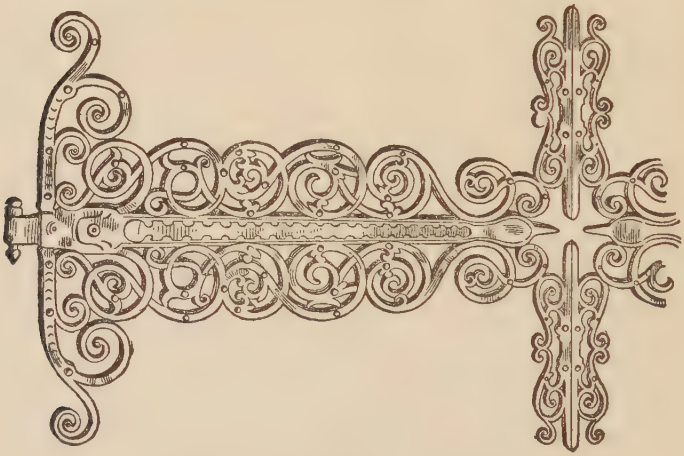
> "St. Dunstan, so the story goes,
> Once pulled the devil by the nose,
> With red hot tongs, which made him roar
> That he was heard three miles or more!"

The same story is told of St. Eloi, and probably of most of the mediæval artistic spirits who were unfortunate enough to be human in their temperaments and at the same time pious and struggling. He was greatly troubled by visitations such as persecuted St. Anthony. On one occasion, it is related that he was busy at his forge when this fiend was unusually persistent: St. Dunstan turned upon the demon, and grasped its nose in the hot pincers, which proved a most successful exorcism. In old portraits, St. Dunstan is represented in full ecclesiastical habit, holding the iron pincers as symbols of his prowess.

He became Archbishop of Canterbury after having held the Sees of Worcester and London. He journeyed to Rome, and received the pallium of Primate of the Anglo-Saxons, from Pope John XII. Dunstan was a

righteous statesman, twice reproving the king for evil deeds, and placing his Royal Highness under the ban of the Church for immoral conduct! St. Dunstan died in 988.

Wrought iron has been in use for many centuries for hinges and other decorations on doors; a necessity to



WROUGHT IRON HINGE, FRANKFORT

every building in a town from earliest times. The word "hinge" comes from the Saxon, *hengen*, to hang. Primitive hinges were sometimes sockets cut in stone, as at Torcello; but soon this was proved a clumsy and inconvenient method of hanging a door, and hinges more simple in one way, and yet more ornate, came into fashion. Iron hinges were found most useful when they extended for some distance on to the door; this strengthened the door against the invasion of pirates, when the

church was the natural citadel of refuge for the inhabitants of a town, and also held it firmly from warping. At first single straps of iron were clamped on: then the natural craving for beauty prevailed, and the hinges developed, flowering out into scrolls and leaves, and spreading all over the doors, as one sees them constantly in mediæval examples. The general scheme usually followed was a straight strap of iron flanked by two curving horns like a crescent, and this motive was elaborated until a positive lace of iron, often engraved or moulded, covered the surface of the door, as in the wonderful work of Biscornette at Notre Dame in Paris.

Biscornette was a very mysterious worker, and no one ever saw him constructing the hinges. Reports went round that the devil was helping him, that he had sold his soul to the King of Darkness in order to enlist his assistance in his work; an instance of æsthetic altruism almost commendable in its exotic zeal. Certain jealous artificers even went so far as to break off bits of the meandering iron, to test it, but with no result; they could not decide whether it was cast or wrought. Later a legend grew up explaining the reason why the central door was not as ornate as the side doors: the story was that the devil was unable to assist Biscornette on this door because it was the aperture through which the Host passed in processions. It is more likely, however, that the doors were originally uniform, and that the iron was subsequently removed for some other reason.

The design is supposed to represent the Earthly Paradise. Sauval says: "The sculptured birds and ornaments are marvellous. They are made of wrought iron, the invention of Biscornette and which died with him. He worked the iron with an almost incredible industry, rendering it flexible and tractable, and gave it all the forms and scrolls he wished, with a 'douceur et une gentillesse' which surprised and astonished all the smiths." The iron master Gaegart broke off fragments of the iron, and no member of the craft has ever been able to state with certainty just how the work was accomplished. Some think that it is cast, and then treated with the file; others say that it must have been executed by casting entire, with no soldering. In any case, the secret will never be divulged, for no one was in the confidence of Biscornette.

Norman blacksmiths and workers in wrought iron were more plentiful than goldsmiths. They had, in those warlike times, more call for arms and the massive products of the forge than for gaudy jewels and table appointments. One of the doors of St. Alban's Abbey displays the skill of Norman smiths dealing with this stalwart form of ornament.

Among special artists in iron whose names have survived is that of Jehan Tonquin, in 1388. Earlier than that, a cutler, Thomas de Fieuvillier, is mentioned, as having flourished about 1330.

Elaborate iron work is rare in Germany; the Germans always excelled rather in bronze than in the sterner

BISCORNETTE'S DOORS AT PARIS

metal. At St. Ursula's in Cologne there are iron floriated hinges, but the design and idea are French, and not native.

One may usually recognize a difference between French and English wrought iron, for the French is often in detached pieces, not an outgrowth of the actual hinge itself, and when this is found in England, it indicates French work.

Ornaments in iron were sometimes cut out of flat sheet metal, and then hammered into form. In stamping this flat work with embossed effect, the smith had to work while the iron was hot, — as Sancho Panza expressed it, "Praying to God and hammering away." Dies were made, after a time, into which the design could be beaten with less effort than in the original method.

One of the quaintest of iron doors is at Krems, where the gate is made up of square sheets of iron, cut into rude pierced designs, giving scenes from the New Testament, and hammered up so as to be slightly embossed.

The Guild of Blacksmiths in Florence flourished as early as the thirteenth century. It covered workers in many metals, copper, iron, brass, and pewter included. Among the rules of the Guild was one permitting members to work for ready money only. They were not allowed to advertise by street crying, and were fined if they did so. The Arms of the Guild was a pair of furnace tongs upon a white field. Among the products of the forge most in demand were the iron window-gratings so invariable on all houses, and called by

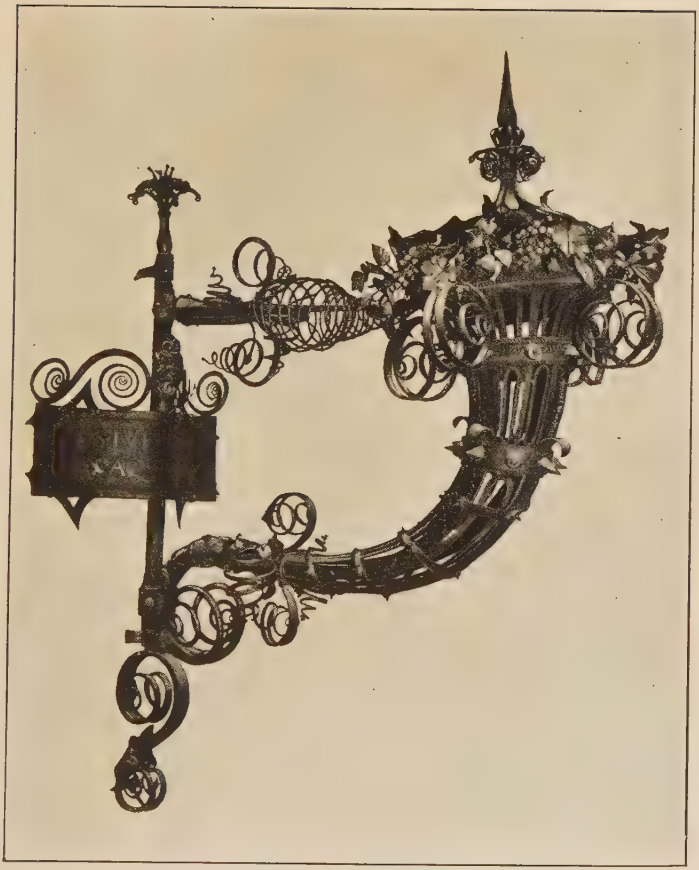
Michelangelo "kneeling windows," on account of the bulging shape of the lower parts.

One famous iron worker carried out the law of the Guild both in spirit and letter to the extent of insisting upon payment in advance! This was Nicolo Grosso, who worked about 1499. Vasari calls him the "money grabber." His specialty was to make the beautiful torch holders and lanterns such as one sees on the Strozzi Palace and in the Bargello.

In England there were Guilds of Blacksmiths; in Middlesex one was started in 1434, and members were known as "in the worship of St. Eloi." Members were alluded to as "Brethren and Sisteren," — this term would fill a much felt vacancy! Some of the Guilds exacted fines from all members who did not pay a proper proportion of their earnings to the Church.

Another general use of iron for artistic purposes was in the manufacture of grilles. Grilles were used in France and England in cathedrals. The earliest Christian grille is a pierced bronze screen in the Church of the Nativity in Bethlehem.

In Hildesheim is an original form of grille; the leaves and rosettes in the design are pierced, instead of being beaten up into bosses. This probably came from the fact that the German smith did not understand the Frankish drawing, and supposed that the shaded portions of the work were intended to be open work. The result, however, is most happy, and a new feature was thus introduced into grille work.



WROUGHT IRON FROM THE BARGELLO, FLORENCE

Many grilles were formed by the smith's taking an iron bar and, under the intense heat, splitting it into various branches, each of which should be twisted in a different way. Another method was to use the single slighter bar for the foundation of the design, and welding on other volutes of similar thickness to make the scroll work associated with wrought iron.

Some of the smiths who worked at Westminster Abbey are known by name; Master Henry Lewis, in 1259, made the iron work for the tomb of Henry III. A certain iron fragment is signed Gilibertus. The iron on the tomb of Queen Eleanor is by Thomas de Leighton, in 1294. Lead workers also had a place assigned to them in the precincts, which was known as "the Plumbery." In 1431 Master Roger Johnson was enjoined to arrest or press smiths into service in order to finish the ironwork on the tomb of Edward IV.

Probably the most famous use of iron in Spain is in the stupendous "*rejas*," or chancel screens of wrought iron; but these are nearly all of a late Renaissance style, and hardly come within the scope of this volume. The requirements of Spanish cathedrals, too, for wrought iron screens for all the side chapels, made plenty of work for the iron masters. In fact, the "*rejeros*," or iron master, was as regular an adjunct to a cathedral as an architect or a painter. Knockers were often very handsome in Spain, and even nail heads were decorated.

An interesting specimen of iron work is the grille that surrounds the tomb of the Scaligers in Verona. It is

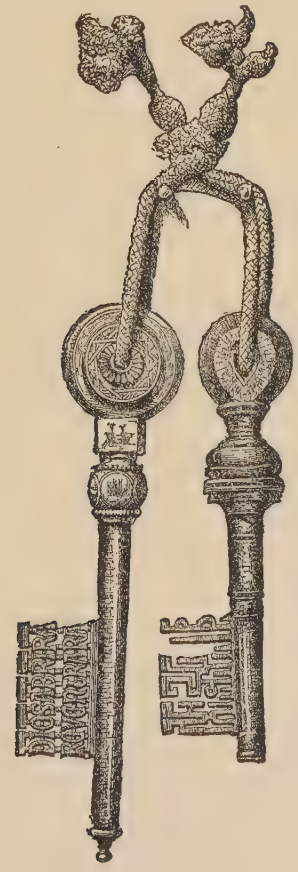
not a hard stiff structure, but is composed of circular forms, each made separately, and linked together with narrow bands, so that the construction is flexible, and is more like a gigantic piece of chain mail than an iron fence.

Quentin Matsys was known as the "blacksmith of Antwerp," and is reported to have left his original work among metals to become a painter. This was done in order to marry the lady of his choice, for she refused to join her fate to that of a craftsman. She, however, was ready to marry a painter. Quentin, therefore, gave up his hammer and anvil, and began to paint Madonnas that he might prosper in his suit. Some authorities, however, laugh at this story, and claim that the specimens of iron work which are shown as the early works of Matsys date from a time when he would have been only ten or twelve years old, and that they must therefore have been the work of his father, Josse Matsys, who was a locksmith. The well-cover in Antwerp, near the cathedral, is always known as Quentin Matsys' well. It is said that this was not constructed until 1470, while Quentin was born in 1466.

The iron work of the tomb of the Duke of Burgundy, in Windsor, is supposed to be the work of Quentin Matsys, and is considered the finest grille in England. It is wrought with such skill and delicacy that it is more like the product of the goldsmith's art than that of the blacksmith.

Another object of utility which was frequently

ornamented was the key. The Key of State, especially, was so treated. Some are nine or ten inches long, having



MOORISH KEYS, SEVILLE

been used to present to visiting grandees as typical of the "Freedom of the City." Keys were often decorated

with handles having the appearance of Gothic tracery. In an old book published in 1795, there is an account of the miraculous Keys of St. Denis, made of silver, which "they apply to the faces of these persons who have been so unfortunate as to be bitten by mad dogs, and who received certain and immediate relief in only touching them." A key in Valencia, over nine inches in length, is richly embossed, while the wards are composed of decorative letters, looking at first like an elaborate sort of filigree, but finally resolving themselves into the autographic statement: "It was made by Ahmed Ahsan." It is a delicate piece of thirteenth or fourteenth century work in iron.

Another old Spanish key has a Hebrew inscription round the handle: "The King of Kings will open: the King of the whole Earth will enter," and, in the wards, in Spanish, "God will open, the King will enter."

The iron smiths of Barcelona formed a Guild in the thirteenth century: it is to be regretted that more of their work could not have descended to us.

A frank treatment of locks and bolts, using them as decorations, instead of treating them as disgraces, upon the surface of a door, is the only way to make them in any degree effective. As Pugin has said, it is possible to use nails, screws, and rivets, so that they become "beautiful studs and busy enrichments." Florentine locksmiths were specially famous; there also was a great fashion for damascened work in that city, and it was executed with much elegance.

In blacksmith's work, heat was used with the hammer at each stage of the work, while in armourer's or locksmith's work, heat was employed only at first, to achieve the primitive forms, and then the work was carried on with chisel and file on the cold metal. Up to the fourteenth century the work was principally that of the blacksmith, and after that, of the locksmith.

The mention of arms and armour in a book of these proportions must be very slight; the subject is a vast one, and no effort to treat it with system would be satisfactory in so small a space. But a few curious and significant facts relating to the making of armour may be cited.

The rapid decay of iron through rust — rapid, that is to say, in comparison with other metals — is often found to have taken place when the discovery of old armour has been made; so that gold ornaments, belonging to a sword or other weapon, may be found in excavating, while the iron which formed the actual weapon has disappeared.

Primitive armour was based on a leather foundation, hence the name cuirass, was derived from *cuir* (leather). In a former book I have alluded to the armour of the nomadic tribes, which is described by Pausanias as coarse coats of mail made out of the hoofs of horses, split, and laid overlapping each other, making them "something like dragon's scales," as Pausanias explains; adding for the benefit of those who are unfamiliar with dragons' anatomy, "Whoever has not *yet* seen a dragon,

has, at any rate, seen a pine cone still green. These are equally like in appearance to the surface of this armour." These horny scales of tough hoofs undoubtedly suggested, at a later date, the use of thick leather as a form of protection, and the gradual evolution may be imagined.

The art of the armourer was in early mediæval times the art of the chain maker. The chain coat, or coats of mail, reached in early days as far as the knees. Finally this developed into an entire covering for the man, with head gear as well; of course this form of armour allowed of no real ornamentation, for there was no space larger than the links of the chain upon which to bestow decoration. Each link of a coat of mail was brought round into a ring, the ends overlapped, and a little rivet inserted. Warriors trusted to no solder or other mode of fastening. All the magnificence of knightly apparel was concentrated in the surcoat, a splendid embroidered or gem-decked tunic to the knees, which was worn over the coat of mail. These surcoats were often trimmed with costly furs, ermine or vair, the latter being similar to what we now call squirrel, being part gray and part white. Cinderella's famous slipper was made of "vair," which, through a misapprehension in being translated "verre," has become known as a glass slipper.

After a bit, the makers of armour discovered that much tedious labor in chain making might be spared, if one introduced a large plate of solid metal on the chest and back. This was in the thirteenth century.

ARMOUR, SHOWING MAIL DEVELOPING INTO PLATE

The elbows and knees were also treated in this way, and in the fourteenth century, the principle of armour had changed to a set of separate plates fastened together by links. This was the evolution from mail to plate armour. A description of Charlemagne as he appeared on the field of battle, in his armour, is given by the Monk of St. Gall, his biographer, and is dramatic. "Then could be seen the iron Charles, helmeted with an iron helmet, his iron breast and broad shoulders protected with an iron breast plate; an iron spear was raised on high in his left hand, his right always rested on his unconquered iron falchion. . . . His shield was all of iron, his charger was iron coloured and iron hearted. . . . The fields and open spaces were filled with iron; a people harder than iron paid universal homage to the hardness of iron. The horror of the dungeon seemed less than the bright gleam of iron. 'Oh, the iron! woe for the iron!' was the confused cry that rose from the citizens. The strong walls shook at the sight of iron: the resolution of young and old fell before the iron."

By the end of the fourteenth and early fifteenth centuries, whole suits of armour were almost invariable, and then came the opportunity for the goldsmith, the damascener, and the niellist. Some of the leading artists, especially in Italy, were enlisted in designing and decorating what might be called the *armour-de-luxe* of the warrior princes! The armour of horses was as ornate as that of the riders.

The sword was always the most imposingly orna-

mented part of a knight's equipment, and underwent various modifications which are interesting to note. At first, it was the only weapon invariably at hand: it was enormously large, and two hands were necessary in wielding it. As the arquebuse came into use, the sword took a secondary position: it became lighter and smaller. And ever since 1510 it is a curious fact that the decorations of swords have been designed to be examined when the sword hangs with the point down; the earlier ornament was adapted to being seen at its best when the sword was held upright, as in action. Perhaps the later theory of decoration is more sensible, for it is certain that neither a warrior nor his opponent could have occasion to admire fine decoration at a time when the sword was drawn! That the arts should be employed to satisfy the eye in times of peace, sufficed the later wearers of ornamented swords.

Toledo blades have always been famous, and rank first among the steel knives of the world. Even in Roman times, and of course under the Moors, Toledo led in this department. The process of making a Toledo blade was as follows. There was a special fine white sand on the banks of the Tagus, which was used to sprinkle on the blade when it was red hot, before it was sent on to the forger's. When the blade was red hot from being steeped four-fifths of its length in flame, it was dropped point first into a bucket of water. If it was not perfectly straight when it was withdrawn, it was beaten into shape, more sand being first put upon it.

After this the remaining fifth of the blade was subjected to the fire, and was rubbed with suet while red hot;

DAMASCENED HELMET

the final polish of the whole sword was produced by emery powder on wooden wheels.

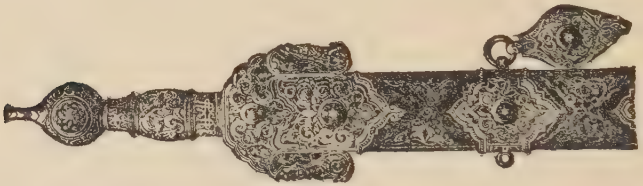
Damascening was a favourite method of ornamenting choice suits of armour, and was also applied to bronzes, cabinets, and such pieces of metal as lent themselves to decoration. The process began like niello: little

channels for the design were hollowed out, in the iron or bronze, and then a wire of brass, silver, or gold, was laid in the groove, and beaten into place, being afterwards polished until the surface was uniform all over. One great feature of the art was to sink the incision a little broader at the base than at the top, and then to force the softer metal in, so that, by this undercutting, it was held firmly in place. Cellini tells of his first view of damascened steel blades. "I chanced," he says, "to become possessed of certain little Turkish daggers, the handle of which together with the guard and blade were ornamented with beautiful Oriental leaves, engraved with a chisel, and inlaid with gold. This kind of work differed materially from any which I had as yet practised or attempted, nevertheless I was seized with a great desire to try my hand at it, and I succeeded so admirably that I produced articles infinitely finer and more solid than those of the Turks." Benvenuto had such a humble opinion of his own powers! But when one considers the pains and labour expended upon the arts of damascening and niello, one regrets that the workers had not been inspired to attempt dentistry, and save so much unnecessary individual suffering!

On the Sword of Boabdil are many inscriptions, among them, "God is clement and merciful," and "God is gifted with the best memory." No two sentiments could be better calculated to keep a conqueror from undue excesses.

Mercia was a headquarters for steel and other metals

in the thirteenth century. Seville was even then famous for its steel, also, and in the words of a contemporary writer, "the steel which is made in Seville is most excellent; it would take too much time to enumerate the delicate objects of every kind which are made in this town." King Don Pedro, in his will, in the fourteenth century, bequeathes to his son, his "Castilian sword, which I had made here in Seville, ornamented with stones and gold." Swords were baptized; they were named, and seemed to have a veritable personality



MOORISH SWORD

of their own. The sword of Charlemagne was christened "Joyeuse," while we all know of Arthur's Excalibur; Roland's sword was called Durandel. Saragossa steel was esteemed for helmets, and the sword of James of Arragon in 1230, "a very good sword, and lucky to those who handled it," was from Monzon. The Cid's sword was similar, and named Tizona. There is a story of a Jew who went to the grave of the Cid to steal his sword, which, according to custom, was interred with the owner: the corpse is said to have resented the intrusion by unsheathing the weapon, which miracle so amazed the Jew that he turned Christian!

German armour was popular. Cologne swords were great favourites in England. King Arthur's sword was one of these, —

> "For all of Coleyne was the blade
> And all the hilt of precious stone."

In the British Museum is a wonderful example of a wooden shield, painted on a gesso ground, the subject being a Knight kneeling before a lady, and the motto: "Vous ou la mort." These wooden shields were used in Germany until the end of Maximilian's reign.

The helmet, or Heaume, entirely concealed the face, so that for purposes of identification, heraldic badges and shields were displayed. Later, crests were also used on the helmets, for the same purpose.

Certain armourers were very well known in their day, and were as famous as artists in other branches. William Austin made a superb suit for the Earl of Warwick, while Thomas Stevyns was the coppersmith who worked on the same, and Bartholomew Lambspring was the polisher. There was a famous master-armourer at Greenwich in the days of Elizabeth, named Jacob: some important arms of that period bear the inscription, "Made by me Jacob." There is some question whether he was the same man as Jacob Topf who came from Innsbruck, and became court armourer in England in 1575. Another famous smith was William Pickering, who made exquisitely ornate suits of what we might call full-dress armour.

Colossal cannon were made: two celebrated guns may be seen, the monster at Ghent, called Mad Meg, and the huge cannon at Edinburgh Castle, Mons Meg, dating from 1476. These guns are composed of steel coils or spirals, afterwards welded into a solid mass instead of being cast. They are mammoth examples of the art of the blacksmith and the forge. In Germany cannon were made of bronze, and these were simply cast.

Cross bows obtained great favour in Spain, even after the arquebuse had come into use. It was considered a safer weapon to the one who used it. An old writer in 1644 remarks, "It has never been known that a man's life has been lost by breaking the string or cord, two things which are dangerous, but not to a considerable extent," . . . and he goes on "once set, its shot is secure, which is not the case with the arquebus, which often misses fire." There is a letter from Ambassador Salimas to the King of Hungary, in which he says: "I went to Balbastro and there occupied myself in making a pair of cross bows for your Majesty. I believe they will satisfy the desires which were required . . . as your Majesty is annoyed when they do not go off as you wish." It would seem as though his Majesty's "annoyance" was justifiable; imagine any one dependent upon the shot of a cross bow, and then having the weapon fail to "go off!" Nothing could be more discouraging.

There is a contemporary treatise which is full of in-

ENAMELLED SUIT OF ARMOUR

terest, entitled, "How a Man shall be Armed at his ease when he shall Fight on Foot." It certainly was a good deal of a contract to render a knight comfortable in spite of the fact that he could see or breathe only imperfectly, and was weighted down by iron at every point. This complete covering with metal added much to the actual noise of battle. Froissart alludes to the fact that in the battle of Rosebeque, in 1382, the hammering on the helmets made a noise which was equal to that of all the armourers of Paris and Brussels working together. And yet the strength needed to sport such accoutrements seems to have been supplied. Leon Alberti of Florence, when clad in a full suit of armour, could spring with ease upon a galloping horse, and it is related that Aldobrandini, even with his right arm disabled, could cleave straight through his opponent's helmet and head, down to the collar bone, with a single stroke!

One of the richest suits of armour in the world is to be seen at Windsor; it is of Italian workmanship, and is made of steel, blued and gilded, with wonderfully minute decorations of damascene and appliqué work. This most ornate armour was made chiefly for show, and not for the field: for knights to appear in their official capacity, and for jousting at tournaments, which were practically social events. In the days of Henry VIII. a chronicler tells of a jouster who "tourneyed in harneyse all of gilt from the head piece to the sabattons." Many had "tassels of fine gold" on their suits.

Italian weapons called "lasquenets" were very deadly. In a letter from Albrecht Dürer to Pirckheimer, he alludes to them, as having "roncions with two hundred and eighteen points: and if they pink a man with any of these, the man is dead, as they are all poisoned."

Bronze is composed of copper with an alloy of about eight or ten per cent. of tin. The fusing of these two metals produces the brown glossy substance called bronze, which is so different from either of them. The art of the bronze caster is a very old and interesting one. The method of proceeding has varied very little with the centuries. A statue to be cast either in silver or bronze would be treated in the following manner.

A general semblance of the finished work was first set up in clay; then over this a layer of wax was laid, as thick as the final bronze was intended to be. The wax was then worked with tools and by hand until it took on the exact form designed for the finished product. Then a crust of clay was laid over the wax; on this were added other coatings of clay, until quite a thick shell of clay surrounded the wax. The whole was then subjected to fervent heat, and the wax all melted out, leaving a space between the core and the outer shell. Into this space the liquid bronze was poured, and after it had cooled and hardened the outer shell was broken off, leaving the statue in bronze exactly as the wax had been.

Cellini relates an experience in Paris, with an old man

eighty years of age, one of the most famous bronze casters whom he had engaged to assist him in his work for Francis I. Something went wrong with the furnace, and the poor old man was so upset and "got into such a stew" that he fell upon the floor, and Benvenuto picked him up fancying him to be dead: "Howbeit," explains Cellini, "I had a great beaker of the choicest wine brought him, . . . I mixed a large bumper of wine for the old man, who was groaning away like anything, and I bade him most winning-wise to drink, and said: 'Drink, my father, for in yonder furnace has entered in a devil, who is making all this mischief, and, look you, we'll just let him bide there a couple of days, till he gets jolly well bored, and then will you and I together in the space of three hours firing, make this metal run, like so much batter, and without any exertion at all.' The old fellow drank and then I brought him some little dainties to eat: meat pasties they were, nicely peppered, and I made him take down four full goblets of wine. He was a man quite out of the ordinary, this, and a most lovable old thing, and what with my caresses and the virtue of the wine, I found him soon moaning away as much with joy as he had moaned before with grief." Cellini displayed in this incident his belief in the great principle that the artist should find pleasure in his work in order to impart to that work a really satisfactory quality, and did exactly the right thing at the right minute; instead of trusting to a faltering effort in a disheartened man, he cheered the old bronze founder

up to such a pitch that after a day or two the work was completed with triumph and joy to both.

In the famous statue of Perseus, Cellini experienced much difficulty in keeping the metal liquid. The account of this thrilling experience, told in his matchless autobiography, is too long to quote at this point; an interesting item, however, should be noted. Cellini used pewter as a solvent in the bronze which had hardened in the furnace. "Apprehending that the cause of it was, that the fusibility of the metal was impaired, by the violence of the fire," he says, "I ordered all my dishes and porringers, which were in number about two hundred, to be placed one by one before my tubes, and part of them to be thrown into the furnace, upon which all present perceived that my bronze was completely dissolved, and that my mould was filling," and, such was the relief that even the loss of the entire pewter service of the family was sustained with equanimity; the family, "without delay, procured earthen vessels to supply the place of the pewter dishes and porringers, and we all dined together very cheerfully." Edgecumb Staley, in the "Guilds of Florence," speaks of the "pewter fattened Perseus:" this is worthy of Carlyle.

Early Britons cast statues in brass. Speed tells of King Cadwollo, who died in 677, being buried "at St. Martin's church near Ludgate, his image great and terrible, triumphantly riding on horseback, artificially cast in brass, was placed on the Western gate of the city, to the further fear and terror of the Saxons!"

In 1562 Bartolomeo Morel, who made the celebrated statue of the Giralda Tower in Seville, executed a fifteen branched candelabrum for the Cathedral. It is a rich Renaissance design, in remarkably chaste and good lines, and holds fifteen statuettes, which are displaced to make room for the candles only during the last few days of Lent.

A curious form of mediæval trinket was the perfume ball; this consisted of a perforated ball of copper or brass, often ornamented with damascene, and intended to contain incense to perfume the air, the balls being suspended.

The earliest metal statuary in England was rendered in latten, a mixed metal of a yellow colour, the exact recipe for which has not survived. The recumbent effigies of Henry III. and Queen Eleanor are made of latten, and the tomb of the Black Prince in Canterbury is the same, beautifully chased. Many of these and other tombs were probably originally covered with gilding, painting, and enamel.

The effigies of Richard II. and his queen, Anne of Bohemia, were made during the reign of the monarch; a contemporary document states that "Sir John Innocent paid another part of a certain indenture made between the King and Nicolas Broker and Geoffrey Prest, coppersmiths of London, for the making of two images, likenesses of the King and Queen, of copper and latten, gilded upon the said marble tomb."

There are many examples of bronze gates in ecclesi-

astical architecture. The gates of St. Paolo Fuori le Mura in Rome were made in 1070, in Constantinople, by Stauracius the Founder. Many authorities think that those at St. Mark's in Venice were similarly produced. The bronze doors in Rome are composed of fifty-four small designs, not in relief, but with the outlines of the subjects inlaid with silver. The doors are in Byzantine taste.

The bronze doors at Hildesheim differ from nearly all other such portals, in the elemental principle of design. Instead of being divided into small panels, they are simply blocked off into seven long horizontal compartments on each side, and then filled with a pictorial arrangement of separate figures; only three or four in each panel, widely spaced, and on a background of very low relief. The figures are applied, at scattered distances apart, and are in unusually high modelling, in some cases being almost detached from the door. The effect is curious and interesting rather than strictly beautiful, on the whole; but in detail many of the figures display rare power of plastic skill, proportion, and action. They are, at any rate, very individual: there are no other doors at all like them. They are the work of Bishop Bernward.

Unquestionably, one of the greatest achievements in bronze of any age is the pair of gates by Lorenzo Ghiberti on the Baptistery in Florence. Twenty-one years were devoted to their making, by Ghiberti and his assistants, with the stipulation that all figures in the design were to be personal work of the master, the

assistants only attending to secondary details. The doors were in place in April, 1424.

The competition for the Baptistery doors reads like

BRUNELLESCHI'S COMPETITIVE PANEL

a romance, and is familiar to most people who know anything of historic art. When the young Ghiberti heard that the competition was open to all, he determined to go to Florence and work for the prize; in

his own words: "When my friends wrote to me that the governors of the Baptistery were sending for masters whose skill in bronze working they wished to prove,

GHIBERTI'S COMPETITIVE PANEL

and that from all Italian lands many maestri were coming, to place themselves in this strife of talent, I could no longer forbear, and asked leave of Sig. Malatesta, who let me depart." The result of the competition is

also given in Ghiberti's words: "The palm of victory was conceded to me by all judges, and by those who competed with me. Universally all the glory was given to me without any exception."

Symonds considers the first gate a supreme accomplishment in bronze casting, but criticizes the other, and usually more admired gate, as "overstepping the limits that separate sculpture from painting," by "massing together figures in multitudes at three and sometimes four distances. He tried to make a place in bas-relief for perspective." Sir Joshua Reynolds finds fault with Ghiberti, also, for working at variance with the severity of sculptural treatment, by distributing small figures in a spacious landscape framework. It was not really in accordance with the limitations of his material to treat a bronze casting as Ghiberti treated it, and his example has led many men of inferior genius astray, although there is no use in denying that Ghiberti himself was clever enough to defy the usual standards and rules.

Fonts were sometimes made in bronze. There is such a one at Liege cast by Lambert Patras, which stands upon twelve oxen. It is decorated with reliefs from the Gospels. This artist, Patras, was a native of Dinant, and lived in the twelfth century. The bronze font in Hildesheim is among the most interesting late Romanesque examples in Germany. It is a large deep basin entirely covered with enrichment of Scriptural scenes, and is supported by four kneeling figures, typical of the

four Rivers of Paradise. The conical cover is also covered with Scriptural scenes, and surmounted by a foliate knob. Among the figures with which the font is covered are the Cardinal Virtues, flanked by their patron saints. Didron considers this a most important piece of bronze from an iconographic point of view theologically and poetically. The archaic qualities of the figures are fascinating and sometimes diverting. In the scene of the Baptism of Christ the water is positively trained to flow upwards in pyramidal form, in order to reach nearly to the waist, while at either side it recedes to the ground level again, — it has an ingenuous and almost startling suddenness in the rising of its flood! An interesting comment upon the prevalence of early national forms may be deduced, when one observes that on the table, at the Last Supper, there lies a perfectly shaped pretzel!

The great bronze column constructed by St. Bernward at Hildesheim has the Life of Christ represented in consecutive scenes in a spiral form, like those ornamenting the column of Trajan. Down by Bernward's grave there is a spring which is said to cure cripples and rheumatics. Peasants visit Hildesheim on saints' days in order to drink of it, and frequently, after one of these visitations, crutches are found abandoned near by.

Saxony was famous for its bronze founders, and work was sent forth, from this country, in the twelfth century, all over Europe.

Orcagna's tabernacle at Or San Michele is, as Symonds

FONT AT HILDESHEIM, 12TH CENTURY

has expressed it, " a monumental jewel," and " an epitome of the minor arts of mediæval Italy." On it one sees bas-relief carving, intaglios, statuettes, mosaic, the lapidary's art in agate; enamels, and gilded glass, and yet all in good taste and harmony. The sculpture is properly subordinated to the architectonic principle, and one can understand how it is not only the work of a goldsmith, but of a painter.

Of all bronze workers, perhaps Peter Vischer is the best known and is certainly one of the best deserving of his wide fame. Peter Vischer was born about the same time as Quentin Matsys, between 1460 and 1470. He was the most important metal worker in Germany. He and Adam Kraft, of whom mention will be made when we come to deal with sculptural carving, were brought up together as boys, and " when older boys, went with one another on all holidays, acting still as though they were apprentices together." Vischer's normal expression was in Gothic form. His first design for the wonderful shrine of St. Sebald in Nuremberg was made by him in 1488, and is still preserved in Vienna. It is a pure late-Gothic canopy, and I cannot help regretting that the execution was delayed until popular taste demanded more concession towards the Renaissance, and it was resolved in 1507, " to have the Shrine of St. Sebald made of brass."

Therefore, although the general lines continue to hold a Gothic semblance, the shrine has many Renaissance features. Regret, however, is almost morbid, in relation

to such a perfect work of art. Italian feeling is evident throughout, and the wealth of detail in figures and foliate forms is magnificent. The centre of interest is the little portrait statuette of Peter Vischer himself, according to his biographer, "as he looked, and as he daily went about and worked in the foundry." Though Peter had not been to Italy himself, his son Hermann had visited the historic land, and had brought home "artistic things that he sketched and drew, which delighted his old father, and were of great use to his brothers." Peter Vischer had three sons, who all followed him in the craft. His workshop must have been an ideal institution in its line.

Some remnants of Gothic grotesque fancy are to be seen on the shrine, although treated outwardly with Renaissance feeling. A realistic life-sized mouse may be seen in one place, just as if it had run out to inspect the work; and the numbers of little tipsy "putti" who disport themselves in all attitudes, in perilous positions on narrow ledges, are full of merry humour.

The metal of St. Sebald's shrine is left as it came from the casting, and owes much of its charm to the lack of filing, polishing, and pointing usual in such monuments. The molten living expression is retained. Only the details and spirit of the figures are Renaissance; the Gothic plan is hardly disturbed, and the whole monument is pleasing in proportion. The figures are exquisite, especially that of St. Peter.

A great Renaissance work in Germany was the grille

PORTRAIT STATUETTE OF PETER VISCHER

of the Rathaus made for Nuremberg by Peter Vischer the Younger. It was of bronze, the symmetrical diapered form of the open work part being supported by chaste and dignified columns of the Corinthian order. It was first designed by Peter Vischer the Elder, and revised and changed by the whole family after Hermann's return from Rome with his Renaissance notions. It was sold in 1806 to a merchant for old metal; later it was traced to the south of France, where it disappeared.

Another famous bronze of Nuremberg is the well-known "Goose Man" fountain, by Labenwolf. Every traveller has seen the quaint half-foolish little man, as he stands there holding his two geese who politely turn away their heads in order to produce the streams of water!

With the best bronzes, and with steel used for decorative purposes, the original casting has frequently been only for general form, the whole of the surface finishing being done with a shaping tool, by hand, giving the appearance of a carving in bronze or steel. In Japanese bronzes this is particularly felt. The classical bronzes were evidently perfect mosaics of different colours, in metal. Pliny tells of a bronze figure of a dying woman, who was represented as having changed colour at the extremities, the fusion of the different shades of bronze being disguised by anklets, bracelets, and a necklace! A curious and very disagreeable work of art, we should say. One sometimes sees in antique fragments ivory or silver eyeballs, and hair and eyelashes made separately

in thin strips and coils of metal; while occasionally the depression of the edge of the lips is sufficient to give rise to the opinion that a thin veneer of copper was applied to give colour.

The bronze effigies of Henry III. and Eleanor, at Westminster, were the work of a goldsmith, Master William Torel, and are therefore finer in quality and are in some respects superior to the average casting in bronze. Torel worked at the palace, and the statues were cast in " cire perdue " process, being executed in the churchyard itself. They are considered among the finest bronzes of the period extant. Gilding and enamel were often used in bronze effigies.

Splendid bronzes, cast each in a single flow, are the recumbent figures of two bishops at Amiens; they are of the thirteenth century. Ruskin says: " They are the only two bronze tombs of her men of the great ages left in France." An old document speaks of the " moulds and imagines " which were in use for casting effigy portraits, in 1394.

Another good English bronze is that of Richard Beauchamp at Warwick, the work of Thomas Stevens, which has been alluded to. In Westminster Abbey, the effigy of Aymer de Valence, dating from 1296, is of copper, but it is not cast; it is of beaten metal, and is enamelled, probably at Limoges.

Bells and cannon are among the objects of actual utility which were cast in bronze. Statues as a rule came later. In the sixteenth and seventeenth centuries

in England, bronze was used to such an extent, that one authority suggested that it should be called the "Age of Bronze." Primitive bells were made of cast iron riveted together: one of these is at the Cologne museum, and the Irish bells were largely of this description. A great bell was presented to the Cathedral of Chartres in 1028, by a donor named Jean, which affords little clue to his personality. This bell weighed over two tons.

There is considerable interest attaching to the subject of the making of bells in the Middle Ages. Even in domestic life bells played quite a part; it was the custom to ring a bell when the bath was ready and to announce meals, as well as to summon the servitors. Church bells, both large and small, were in use in England by 670, according to Bede. They were also carried by missionaries; those good saints, Patrick and Cuthbert, announced their coming like town criers! The shrine of St. Patrick's bell has been already described. Bells used to be regarded with a superstitious awe, and were supposed to have the ability to dispel evil spirits, which were exorcised with "bell, book, and candle." The bell of St. Patrick, inside the great shrine, is composed of two pieces of sheet iron, one of which forms the face, and being turned over the top, descends about half-way down the other side, where it meets the second sheet. Both are bent along the edges so as to form the sides of the bell, and they are both secured by rivets. A rude handle is similarly attached to the top.

A quaint account is given by the Monk of St. Gall

about a bell ordered by Charlemagne. Charlemagne having admired the tone of a certain bell, the founder, named Tancho, said to him: "Lord Emperor, give orders that a great weight of copper be brought to me that I may refine it, and instead of tin give me as much silver as I need, — a hundred pounds at least, — and I will cast such a bell for you that this will seem dumb in comparison to it." Charlemagne ordered the required amount of silver to be sent to the founder, who was, however, a great knave. He did not use the silver at all, but, laying it aside for his own use, he employed tin as usual in the bell, knowing that it would make a very fair tone, and counting on the Emperor's not observing the difference. The Emperor was glad when it was ready to be heard, and ordered it to be hung, and the clapper attached. "That was soon done," says the chronicler, "and then the warden of the church, the attendants, and even the boys of the place, tried, one after the other, to make the bell sound. But all was in vain; and so at last the knavish maker of the bell came up, seized the rope, and pulled at the bell. When, lo! and behold! down from on high came the brazen mass; fell on the very head of the cheating brass founder; killed him on the spot; and passed straight through his carcase and crashed to the ground. . . . When the aforementioned weight of silver was found, Charles ordered it to be distributed among the poorest servants of the palace."

There is record of bronze bells in Valencia as early as 622, and an ancient mortar was found near Monzon,

in the ruins of a castle which had formerly belonged to the Arabs. Round the edge of this mortar was the inscription: "Complete blessing, and ever increasing happiness and prosperity of every kind and an elevated and happy social position for its owner." The mortar was richly ornamented.

At Croyland, Abbot Egebric "caused to be made two great bells which he named Bartholomew and Bethelmus, two of middle size, called Turketul and Tatwyn, and two lesser, Pega and Bega." Also at Croyland were placed "two little bells which Fergus the brass worker of St. Botolph's had lately given," in the church tower, "until better times," when the monks expressed a hope that they should improve all their buildings and appointments.

Oil that dropped from the framework on which church bells were hung was regarded in Florence as a panacea for various ailments. People who suffered from certain complaints were rubbed with this oil, and fully believed that it helped them.

The curfew bell was a famous institution; but the name was not originally applied to the bell itself. This leads to another curious bit of domestic metal. The popular idea of a curfew is that of a bell; a bell was undoubtedly rung at the curfew hour, and was called by its name; but the actual curfew (or *couvre feu*) was an article made of copper, shaped not unlike a deep "blower," which was used in order to extinguish the fire when the bell rang. There are a few specimens in

England of these curious covers: they stood about ten to fifteen inches high, with a handle at the top, and closed in on three sides, open at the back. The embers were shovelled close to the back of the hearth, and the curfew, with the open side against the back of the

A COPPER "CURFEW"

chimney, was placed over them, thus excluding all air. Horace Walpole owned, at Strawberry Hill, a famous old curfew, in copper, elaborately decorated with vines and the York rose.

The Sanctuary knocker at Durham Cathedral is an important example of bronze work, probably of the

SANCTUARY KNOCKER, DURHAM CATHEDRAL

same age as the Cathedral door on which it is fastened. They both date from about the eleventh century. Ever since 740, in the Episcopate of Cynewulf, criminals were allowed to claim Sanctuary in Durham. When this knocker was sounded, the door was opened, by two porters who had their accommodations always in two little chambers over the door, and for a certain length of time the criminal was under the protection of the Church.

In speaking of the properties of lead, the old English Bartholomew says: "Of uncleanness of impure brimstone, lead hath a manner of neshness, and smircheth his hand who toucheth it . . . a man may wipe off the uncleanness, but always it is lead, although it seemeth silver." Weather vanes, made often of lead, were sometimes quite elaborate. One of the most important pieces of lead work in art is the figure of an angel on the chewet of Ste. Chapelle in Paris. Originally this figure was intended to be so controlled by clockwork that it would turn around once in the course of the twenty-four hours, so that his attitude of benediction should be directed to all four quarters of the city; but this was not practicable, and the angel is stationary. The cock on the weather vane at Winchester was described as early as the tenth century, in the Life of St. Swithin, by the scribe Walstan. He calls it "a cock of elegant form, and all resplendent and shining with gold who occupies the summit of the tower. He regards the world from on high, he commands all the country. Before him

extend the stars of the North, and all the constellations of the zodiac. Under his superb feet he holds the sceptre of the law, and he sees under him all the people of Winchester. The other cocks are humble subjects of this one, whom they see thus raised in mid-air above them: he scorns the winds, that bring the rains, and, turning, he presents to them his back. The terrible efforts of the tempest do not annoy him, he receives with courage either snow or lightning, alone he watches the sun as it sets and dips into the ocean: and it is he who gives it its first salute on its rising again. The traveller who sees him afar off, fixes on him his gaze; forgetting the road he has still to follow, he forgets his fatigues: he advances with renewed ardour. While he is in reality a long way from the end, his eyes deceive him, and he thinks that he has arrived." Quite a practical tribute to a weather cock!

The fact that leaden roofs were placed on all churches and monastic buildings in the Middle Ages, accounts in part for their utter destruction in case of fire; for it is easy to see how impossible it would be to enter a building in order to save anything, if, to the terror of flames, were added the horror of a leaden shower of molten metal proceeding from every part of the roof at once! If a church once caught fire, that was its end, as a rule.

The invention of clocks, on the principle of cog-wheels and weights, is attributed to a monk, named Gerbert, who died in 1013. He had been instructor to King Robert, and was made Bishop of Rheims, later becoming

Pope Sylvester II. Clocks at first were large affairs in public places. Portable clocks were said to have been first made by Carovage, in 1480.

An interesting specimen of mediæval clock work is

ANGLO SAXON CRUCIFIX OF LEAD

the old Dijon time keeper, which still performs its office, and which is a privilege to watch at high noon. Twelve times the bell is struck: first by a man, who turns decorously with his hammer, and then by a woman, who does the same. This staunch couple have worked

for their living for many centuries. Froissart alludes to this clock, saying: "The Duke of Burgundy caused to be carried away from the market place at Courtray a clock that struck the hours, one of the finest which could be found on either side of the sea: and he conveyed it by pieces in carts, and the bell also, which clock was brought and carted into the town of Dijon, in Burgundy, where it was deposited and put up, and there strikes the twenty-four hours between day and night." This was in 1382, and there is no knowing how long the clock may have performed its functions in Courtray prior to its removal to Dijon.

The great clock at Nuremberg shows a procession of the Seven Electors, who come out of one door, pass in front of the throne, each turning and doing obeisance, and pass on through another door. It is quite imposing, at noon, to watch this procession repeated twelve times. The clock is called the Mannleinlauffen.

In the Statutes of Francis I., there is a clause stating that clockmakers as well as goldsmiths were authorized to employ in their work gold, silver, and all other materials.

In Wells Cathedral is a curious clock, on which is a figure of a monarch, like Charles I., seated above the bell, which he kicks with his heels when the hour comes round. He is popularly known as "Jack Blandiver." This clock came originally from Glastonbury. On the hour a little tournament takes place, a race of little mounted knights rushing out in circles and charging each other vigorously.

Pugin regrets the meaningless designs used by early Victorian clock makers. He calls attention to the fact that "it is not unusual to cast a Roman warrior in a flying chariot, round one of the wheels of which on close inspection the hours may be descried; or the whole front of a cathedral church reduced to a few inches in height, with the clock face occupying the position of a magnificent rose window!" This is not overdrawn; taste has suffered many vicissitudes in the course of time, but we hope that the future will hold more beauty for us in the familiar articles of the household than have prevailed at some periods in the past.

CHAPTER V

TAPESTRY

A STUDY of textiles is often subdivided into tapestry, carpet-weaving, mechanical weaving of fabrics of a lighter weight, and embroidery. These headings are useful to observe in our researches in the mediæval processes connected with the loom and the needle.

Tapestry, as we popularly think of it, in great rectangular wall-hangings with rather florid figures from Scriptural scenes, commonly dates from the sixteenth century or later, so that it is out of our scope to study its manufacture on an extensive scale. But there are earlier tapestries, much more restrained in design, and more interesting and frequently more beautiful. Of these earlier works there is less profusion, for the examples are rare and precious, and seldom come into the market nowadays. The later looms were of course more prolific as the technical facilities increased. But a study of the craft as it began gives one all that is necessary for a proper appreciation of the art of tapestry weaving.

The earliest European work with which we have to concern ourselves is the Bayeux tapestry. Although this is really needlework, it is usually treated as tapestry,

and there seems to be no special reason for departing from the custom. Some authorities state that the Bayeux tapestry was made by the Empress Matilda, daughter of Henry I., while others consider it the achievement of Queen Matilda, the wife of William the Conqueror. She is recorded to have sat quietly awaiting her lord's coming while she embroidered this quaint souvenir of his prowess in conquest. A veritable mediæval Penelope, it is claimed that she directed her ladies in this work, which is thoroughly Saxon in feeling and costuming. It is undoubtedly the most interesting remaining piece of needlework of the eleventh century, and it would be delightful if one could believe the legend of its construction. Its attribution to Queen Matilda is very generally doubted by those who have devoted much thought to the subject. Mr. Frank Rede Fowke gives it as his opinion, based on a number of arguments too long to quote in this place, that the tapestry was not made by Queen Matilda, but was ordered by Bishop Odo as an ornament for the nave of Bayeux Cathedral, and was executed by Norman craftsmen in that city. Dr. Rock also favours the theory that it was worked by order of Bishop Odo. Odo was a brother of William the Conqueror and might easily have been interested in preserving so important a record of the Battle of Hastings. Dr. Rock states that the tradition that Queen Matilda executed the tapestry did not arise at all until 1730.

The work is on linen, executed in worsteds. Fowke gives the length as two hundred and thirty feet, while

it is only nineteen inches wide, — a long narrow strip of embroidery, in many colours on a cream white ground. In all, there are six hundred and twenty-three figures, besides two hundred horses and dogs, five hundred and five animals, thirty-seven buildings, forty-one ships, forty-nine trees, making in all the astonishing number of one thousand five hundred and twelve objects!

The colours are in varying shades of blue, green, red and yellow worsted. The colours are used as a child employs crayons; just as they come to hand. When a needleful of one thread was used up, the next was taken, apparently quite irrespective of the colour or shade. Thus, a green horse will be seen standing on red legs, and a red horse will sport a blue stocking! Mr. J. L. Hayes believes that these varicoloured animals are planned purposely: that two legs of a green horse are rendered in red on the further side, to indicate perspective, the same principle accounting for two blue legs on a yellow horse!

The buildings are drawn in a very primitive way, without consideration for size or proportion. The solid part of the embroidery is couched on, while much of the work is only rendered in outline. But the spirited little figures are full of action, and suggest those in the celebrated Utrecht Psalter. Sometimes one figure will be as high as the whole width of the material, while again, the people will be tiny. In the scene representing the burial of Edward the Confessor, in Westminster Abbey, the roof of the church is several inches lower than the

DETAIL, BAYEUX TAPESTRY

bier which is borne on the shoulders of men nearly as tall as the tower!

The naïve treatment of details is delicious. Harold, when about to embark, steps with bare legs into the tide: the water is laid out in the form of a hill of waves, in order to indicate that it gets deeper later on. It might serve as an illustration of the Red Sea humping up for the benefit of the Israelites! The curious little stunted figure with a bald head, in the group of the conference of messengers, would appear to be an abortive attempt to portray a person at some distance — he is drawn much smaller than the others to suggest that he is quite out of hearing! This seems to have been the only attempt at rendering the sense of perspective. Then comes a mysterious little lady in a kind of shrine, to whom a clerk is making curious advances; to the casual observer it would appear that the gentleman is patting her on the cheek, but we are informed by Thierry that this represents an embroideress, and that the clerk is in the act of ordering the Bayeux Tapestry itself! Conjecture is swamped concerning the real intention of this group, and no certain diagnosis has ever been pronounced! The Countess of Wilton sees in this group "a female in a sort of porch, with a clergyman in the act of pronouncing a benediction upon her!" Every one to his taste.

A little farther on there is another unexplained figure: that of a man with his feet crossed, swinging joyously on a rope from the top of a tower.

Soon after the Crowning of Harold, may be seen a crowd of people gazing at an astronomic phenomenon which has been described by an old chronicler as a "hairy star." It is recorded as "a blazing starre" such as "never appears but as a prognostic of afterclaps," and again, as "dreadful to be seen, with bloudie haires, and all over rough and shagged at the top." Another author complacently explains that comets "were made to the end that the ethereal regions might not be more void of monsters than the ocean is of whales and other great thieving fish!" A very literal interpretation of this "hairy star" has been here embroidered, carefully fitted out with cog-wheels and all the paraphernalia of a conventional mediæval comet.

In the scenes dealing with the preparation of the army and the arrangement of their food, there occurs the lassooing of an ox; the amount of action concentrated in this group is really wonderful. The ox, springing clear of the ground, with all his legs gathered up under him, turns his horned head, which is set on an unduly long neck, for the purpose of inspecting his pursuers. No better origin for the ancient tradition of the cow who jumped over the moon could be adduced. And what shall we say of the acrobatic antics of Leofwine and Gyrth when meeting their deaths in battle? These warriors are turning elaborate handsprings in their last moments, while horses are represented as performing such somersaults that they are practically inverted. In the border of this part of the tapestry, soldiers are

seen stripping off the coats of mail from the dead warriors on the battle-field; this they do by turning the tunic inside out and pulling it off at the head, and the resulting attitudes of the victims are quaint and realistic in the extreme! The border has been appropriately described as "a layer of dead men." In the tenth and eleventh centuries one of the regular petitions in the Litany was "From the fury of the Normans Good Lord Deliver us."

The Bayeux Tapestry was designated, in 1746, as "the noblest monument in the world relating to our old English History." It has passed through most trying vicissitudes, having been used in war time as a canvas covering to a transport wagon, among other experiences. For centuries this precious treasure was neglected and not understood. In his "Tour" M. Ducarel states: "The priests . . . to whom we addressed ourselves for a sight of this remarkable piece of antiquity, knew nothing of it; the circumstance only of its being annually hung up in their church led them to understand what we wanted, no person then knowing that the object of our inquiries any ways related to the Conqueror." This was in the nineteenth century.

Anglo-Saxon women spent much of their time in embroidering. Edith, Queen of Edward the Confessor, was quite noted for her needlework, which was sometimes used to decorate the state robes of the king.

Formerly there existed at Ely Cathedral a work very like the Bayeux Tapestry, recording the deeds of the

heroic Brihtnoth, the East Saxon, who was slain in 991, fighting the Danish forces. His wife rendered his history in needlework, and presented it to Ely. Unhappily there are no remains of this interesting monument now existing. The nearest thing to the Bayeux Tapestry in general texture and style is perhaps a twelfth century work in the Cathedral at Gerona, a little over four yards square, which is worked in crewels on linen, and is ornamented with scenes of an Oriental and primitive character, taken mainly from the story of Genesis. These tapestries come under the head of needlework. The tapestries made on looms proceed upon a different principle, and are woven instead of embroidered.

Two kinds of looms were used under varying conditions in different places; high warp looms, or *Haute Lisse*, and low warp looms, known as *Basse Lisse*.

The general method of making tapestries on a high warp loom has been much the same for many centuries. The warp is stretched vertically in two sets, every other thread being first forward and then back in the setting. M. Lacordaire, late Director of the Gobelins, writes as follows: "The workman takes a spindle filled with worsted or silk . . . he stops off the weft thread and fastens it to the warp, to the left of the space to be occupied by the colour he has in hand; then, by passing his left hand between the back and the front threads, he separates those that are to be covered with colours; with his right hand, having passed it through the same threads, he reaches to the left side, for the spindle which

he brings back to the right; his left hand, then, seizing hold of the warp, brings the back threads to the front, while the right hand thrusts the spindle back to the point whence it started." When a new colour is to be introduced, the artist takes a new shuttle. He fastens his thread on the wrong side of the tapestry (the side on which he works) and repeats the process just described on the strings stretched up and down before him, like harp strings; the work is commenced at the lower part, and worked upwards, so that, when this strictly "hand weaving" is accomplished, it may be crowded down into place by means of a kind of ivory comb, so adjusted that the teeth fit between the warp threads. In tapestry weaving, the warp could be of any inferior but strong thread, for, by the nature of the work, only the woof was visible, the warp being quite hidden and incorporated into the texture under the close lying stitches which met and dove-tailed over it.

The worker on a low loom does not see the right side of the work at all, unless he lifts the loom, which is a difficult undertaking. On a high loom, it is only necessary for the worker to go around to the front in order to see exactly what he is doing. The design is put below the work, however, in a low loom, and the work is thus practically traced as the tapestry proceeds.

On account of the limitations of the human arm in reaching, the low warp tapestry requires more seams than does that made on the "haute lisse" loom, the pieces being individually smaller. One whole division

of the workmen in tapestry establishments used to be known as the "fine drawers," whose whole duty was to join the different pieces together, and also to repair worn tapestries, inserting new stitches for restorations. Tapestry repairing was a necessary craft; at Rheims some tapestries were restored by Jacquemire de Bergeres; these hangings had been "much damaged by dogs, rats, mice, and other beasts." It is not stated where they had been hung!

High warp looms have been known in Europe certainly since the ninth century. There is an order extant, from the Bishop of Auxerre, who died in 840, for some "carpets for his church." In 890 the monks of Saumur were manufacturing tapestries. Beautiful textiles had been used to ornament the Church of St. Denis as early as 630, but there is no proof that these were actually tapestries. There is a legend that in 732 a tapestry establishment existed in the district between Tours and Poitiers. At Beauvais, too, the weavers of arras were settled at the time of the Norman ravages.

King Dagobert was a mediæval patron of arts in France. He had the walls of St. Denis (which he built) hung with rich tapestries set with pearls and wrought with gold. At the monastery of St. Florent, at Saumur in 985, the monks wove tapestries, using floral and animal forms in their designs. At Poitiers there was quite a flourishing factory as early as 1025. Tapestry was probably first made in France, to any considerable extent, then, in the ninth century. The historian

of the monastery of Saumur tells us an interesting incident in connection with the works there. The Abbot of St. Florent had placed a magnificent order for "curtains, canopies, hangings, bench covers, and other ornaments, . . . and he caused to be made two pieces of tapestry of large size and admirable quality, representing elephants." While these were about to be commenced, the aforesaid abbot was called away on a journey. The ecclesiastic who remained issued a command that the tapestries should be made with a woof different from that which they habitually used. "Well," said they, "in the absence of the good abbot we will not discontinue our employment; but as you thwart us, we shall make quite a different kind of fabric." So they deliberately set to work to make square carpets with silver lions on a red ground, with a red and white border of various animals! Abbot William was fortunately pleased with the result, and used lions interchangeably with elephants thereafter in his decorations.

At the ninth century tapestry manufactory in Poitiers, an amusing correspondence took place between the Count of Poitou and an Italian bishop, in 1025. Poitou was at that time noted for its fine breed of mules. The Italian bishop wrote to ask the count to send him one mule and one tapestry, — as he expressed it, "both equally marvellous." The count replied with spirit: "I cannot send you what you ask, because for a mule to merit the epithet *marvellous,* he would have to have horns, or three tails, or five legs, and this I should not

be able to find. I shall have to content myself with sending you the best that I can procure!"

In 992 the Abbey of Croyland, in England, owned "two large foot cloths woven with lions, to be laid before the high altar on great festivals, and two shorter ones trailed all over with flowers, for the feast days of the Apostles."

Under Church auspices in the twelfth century, the tapestry industry rose to its most splendid perfection. When the secular looms were started, the original beauty of the work was retained for a considerable time; in the tenth century German craftsmen worked as individuals, independently of Guilds or organizations. In the thirteenth century the work was in a flourishing condition in France, where both looms were in use. The upright loom is still used at the Gobelin factory.

As an adjunct to the stained glass windows in churches, there never was a texture more harmonious than good mediæval tapestry. In 1260 the best tapestries in France were made by the Church exclusively; in 1461 King René of Anjou bequeathed a magnificent tapestry in twenty-seven subjects representing the Apocalypse, to "the church of Monsieur St. Maurice," at Angers.

Although tapestry was made in larger quantities during the Renaissance, the mediæval designs are better adapted to the material.

The royal chambers of the Kings of England were hung with tapestry, and it was the designated duty of the Chamberlain to see to such adornment. In 1294

there is mention of a special artist in tapestry, who lived near Winchester; his name was Sewald, and he was further known as "le tapenyr," which, according to M. G. Thomson, signifies tapestrier.

One is led to believe that tapestries were used as church adornments before they were introduced into dwellings; for it was said, when Queen Eleanor of Castile had her bedroom hung with tapestries, that "it was like a church." At Westminster, a writer of 1631 alludes to the "cloths of Arras which adorn the choir."

Sets of tapestries to hang entire apartments were known as "Hallings." Among the tapestries which belonged to Charles V. was one "worked with towers, fallow bucks and does, to put over the King's boat." Among early recorded tapestries are those mentioned in the inventory of Philip the Bold, in 1404, while that of Philip the Good tells of his specimens, in 1420. Nothing can well be imagined more charming than the description of a tapestried chamber in 1418; the room being finished in white was decorated with paroquets and damsels playing harps. This work was accomplished for the Duchess of Bavaria by the tapestry maker, Jean of Florence.

Flanders tapestry was famous in the twelfth and fourteenth centuries. Arras particularly was the town celebrated for the beauty of its work. This famous manufactory was founded prior to 1350, as there is mention of work of that period. Before the town be-

came known as Arras, while it still retained its original name, Nomenticum, the weavers were famous who worked there. In 282 A. D. the woven cloaks of Nomenticum were spoken of by Flavius Vopiscus.

The earliest record of genuine Arras tapestry occurs in an order from the Countess of Artois in 1313, when she directs her receiver " de faire faire six tapis à Arras." Among the craftsmen at Arras in 1389 was a Saracen, named Jehan de Croisètes, and in 1378 there was a worker by the name of Huwart Wallois. Several of its workmen emigrated to Lille, in the fifteenth century, among them one Simon Lamoury and another, Jehan de Rausart. In 1419 the Council Chamber of Ypres was ornamented with splendid tapestries by François de Wechter, who designed them, and had them executed by Arras workmen. The Van Eycks and Memline also designed tapestries, and there is no doubt that the art would have continued to show a more consistent regard for the demands of the material if Raphael had never executed his brilliant cartoons. The effort to be Raphaelesque ruined the effect of many a noble piece of technique, after that.

In 1302 a body of ten craftsmen formed a Corporation in Paris. The names of several workmen at Lille have been handed down to us. In 1318 Jehan Orghet is recorded, and in 1368, Willaume, a high-warp worker. Penalties for false work were extreme. One of the best known workers in France was Bataille, who was closely followed by one Dourdain.

FLEMISH TAPESTRY, "THE PRODIGAL SON"

A famous Arras tapestry was made in 1386 by a weaver of the name of Michel Bernard. It measured over two hundred and eighty-five square yards, and represented the battle of Roosebecke. At this time a tapestry worker lived, named Jehanne Aghehe, one of the first attested women's names in connection with this art. In the Treasury of the church of Douai there is mention of three cushions made of high loom tapestry presented in 1386 by "la demoiselle Englise." It is not known who this young lady may have been. France and Flanders made the most desirable tapestries in the fourteenth century. In Italy the art had little vogue until the fifteenth.

Very little tapestry was made in Spain in the Middle Ages, — the earliest well known maker was named Gutierrez, in the time of Philip IV. The picture by Velasquez, known as "The Weavers," represents the interior of his manufactory.

A table cloth in mediæval times was called a "carpett:" these were often very ornate, and it is useful to know that their use was not for floor covering, for the inventories often mention "carpetts" worked with pearls and silver tissue, which would have been singularly inappropriate. The Arabs introduced the art of carpet weaving into Spain. An Oriental, Edrisi, writing in the twelfth century, says that such carpets were made at that time in Alicante, as could not be produced elsewhere, owing to certain qualities in both air and water which greatly benefited the wool used in their manufacture.

In the Travels of Jean Lagrange, the author says that all carpets of Smyrna and Caramania are woven by women. As soon as a girl can hold a shuttle, they stretch cords between two trees, to make a warp, and then they give her all colours of wools, and leave her to her own devices. They tell her, "It is for you to make your own dowry." Then, according to the inborn art instinct of the child, she begins her carpet. Naturally, traditions and association with others engaged in the same pursuit assist in the scheme and arrangement; usually the carpet is not finished until she is old enough to marry. "Then," continues Lagrange, "two masters, two purchasers, present themselves; the one carries off a carpet, and the other a wife."

Edward II. of England owned a tapestry probably of English make, described as "a green hanging of wool wove with figures of Kings and Earls upon it." There was a roistering Britisher called John le Tappistere, who was complained of by certain people near Oxford, as having seized Master John of Shoreditch, and assaulted and imprisoned him, confiscating his goods and charging him fifty pounds for ransom. It is not stated what the gentleman from Shoreditch had done thus to bring down upon him the wrath of John the weaver!

English weavers had rather the reputation of being fighters: in 1340 one George le Tapicier murdered John le Dextre of Leicester; while Giles de la Hyde also slew Thomas Tapicier in 1385. Possibly these rows occurred on account of a practical infringement upon the man-

ufacturing rights of others as set down in the rules of the Company. There was a woman in Finch Lane who produced tapestry, with a cotton back, "after the manner of the works of Arras:" this was considered a dishonest business, and the work was ordered to be burnt.

Roger van der Weyden designed a set of tapestries representing the History of Herkinbald, the stern uncle who, with his own hand, beheaded his nephew for wronging a young woman. Upon his death-bed, Herkinbald refused to confess this act as a sin, claiming the murder to have been justifiable and a positive virtue. Apparently the Higher Powers were on his side, too, for, when the priest refused the Eucharist to the impertinent Herkinbald, it is related that the Host descended by a miracle and entered the lips of the dying man. A dramatic story, of which van der Weyden made the most, in designing his wonderfully decorative tapestries. The originals were lost, but similar copies remain.

As early as 1441 tapestries were executed in Oudenardes; usually these were composed of green foliage, and known as "verdures." In time the names "verdure" and "Oudenarde" became interchangeably associated with this class of tapestry. They represented woodland and hunting scenes, and were also called "Tapestry verde," and are alluded to by Chaucer.

Curious symbolic subjects were often used: for instance, for a set of hangings for a banquet hall, what could be more whimsically appropriate than the repre-

sentation of "Dinner," giving a feast to "Good Company," while "Banquet" and "Maladies" attack the guests! This scene is followed by the arrest of "Souper" and "Banquet" by "Experience," who condemns them both to die for their cruel treatment of the Feasters!

There is an old poem written by a monk of Chester, named Bradshaw, in which a large hall decorated with tapestries is described as follows:

> "All herbs and flowers, fair and sweet,
> Were strawed in halls, and layd under their feet;
> Cloths of gold, and arras were hanged on the wall,
> Depainted with pictures and stories manifold
> Well wrought and craftely."

A set of tapestries was made by some of the monks of Troyes, who worked upon the high loom, displaying scenes from the Life of the Magdalen. This task was evidently not devoid of the lighter elements, for in the bill, the good brothers made charge for such wine as they drank "when they consulted together in regard to the life of the Saint in question!"

Among the most interesting tapestries are those representing scenes from the Wars of Troy, in South Kensington. They are crowded with detail, and in this respect exhibit most satisfactorily the beauties of the craft, which is enhanced by small intricacies, and rendered less impressive when treated in broad masses of unrelieved woven colour. Another magnificent set, bearing similar characteristics, is the History of Clovis at Rheims.

There is a fascinating set of English tapestries representing the Seasons, at Hatfield: these were probably woven at Barcheston. The detail of minute animal and vegetable forms — the flora and fauna, as it were in worsted — are unique for their conscientious finish. They almost amount to catalogues of plants and beasts. The one which displays Summer is a herbal and a Noah's Ark turned loose about a full-sized Classical Deity, who presides in the centre of the composition.

Among English makers of tapestries was a workman named John Bakes, who was paid the magnificent sum of twelve pence a day, while in an entry in another document he is said to have received only fourpence daily.

The Hunting Tapestries belonging to the Duke of Devonshire are as perfect specimens as any that exist of the best period of the art. They are represented in colour in W. G. Thomson's admirable work on Tapestries, and are thus available to most readers in some public collection.

Another splendidly decorative specimen is at Hampton Court, being a series of the Seven Deadly Sins. They measure about twenty-five by thirteen feet each, and are worked in heavy wools and silks.

As technical facility developed, certain weaknesses began to show themselves. Tapestry weavers had their favourite figures, which, to save themselves trouble, they would often substitute for others in the original design.

Arras tapestries were no longer made in the six-

teenth century, and the best work of that time was accomplished in the Netherlands. About 1540 Brussels probably stood at the head of the list of cities famous for the production of these costly textiles. The Raphael tapestries were made there, by Peter van Aelst, under the order of Pope Leo X. They were executed in the space of four years, being finished in 1519, only a year before Raphael's death.

In the sixteenth century the Brussels workers began to make certain "short cuts" not quite legitimate in an art of the highest standing, such as touching up the faces with liquid dyes, and using the same to enhance the effect after the work was finished. A law was passed that this must not be done on any tapestry worth more than twelve pence a yard. In spite of this trickery, the Netherlandish tapestries led all others in popularity in that century.

It was almost invariable, especially in Flemish work, to treat Scriptural subjects as dressed in the costume of the period in which the tapestry happened to be made. When one sees the Prodigal Son attired in a delightful Flemish costume of a well-appointed dandy, and Adam presented to God the Father, both being clothed in Netherlandish garments suitable for Burgomasters of the sixteenth century, then we can believe that the following description, quoted by the Countess of Wilton, is hardly overdrawn. "In a corner of the apartment stood a bed, the tapestry of which was enwrought with gaudy colours, representing Adam and Eve in the Garden

of Eden. . . . Adam was presenting our first mother with a large yellow apple gathered from a tree which scarcely reached his knee. . . . To the left of Eve appeared a church, and a dark robed gentleman holding something in his hand which looked like a pin cushion, but doubtless was intended for a book; he seemed pointing to the holy edifice, as if reminding them that they were not yet married! On the ground lay the rib, out of which Eve, who stood a head higher than Adam, had been formed: both of them were very respectably clothed in the ancient Saxon costume; even the angel wore breeches, which, being blue, contrasted well with his flaming red wings."

In France, the leading tapestry works were at Tours in the early sixteenth century. A Flemish weaver, Jean Duval, started the work there in 1540. Until 1552 he and his three sons laboured together with great results, and they left a large number of craftsmen to follow in their footsteps.

In Italy the art had almost died out in the early sixteenth century, but revived in full and florid force under the Raphaelesque influence.

King René of Anjou collected tapestries so assiduously that the care and repairing of them occupied the whole time of a staff of workers, who were employed steadily, living in the palace, and sleeping at night in the various apartments in which the hangings were especially costly.

Queen Jeanne, the mother of Henri IV., was a skilled

worker in tapestry. To quote Miss Freer in the Life of Jeanne d'Albret, "During the hours which the queen allowed herself for relaxation, she worked tapestry and discoursed with some one of the learned men whom she protected." This queen was of an active mental calibre and one to whom physical repose was most repugnant. She was a regular and pious attendant at church, but sitting still was torture to her, and listening to the droning sermons put her to sleep. So, with a courage to be admired, Jeanne "demanded permission from the Synod to work tapestry during the sermon. This request was granted; from thenceforth Queen Jeanne, bending decorously over her tapestry frame, and busy with her needle, gave due attention."

The Chateau of Blois, during the reign of Louis XII. and Ann of Brittany, is described as being regally appointed with tapestries: "Those which were hung in the apartments of the king and queen," says the chronicler, "were all full of gold; and the tapestries and embroideries of cloth of gold and of silk had others beneath them ornamented with personages and histories as those were above. Indeed, there was so great a number of rich tapestries, velvet carpets, and bed coverings, of gold and silk, that there was not a chamber, hall, or wardrobe, that was not full."

In an inventory of the Princess of Burgundy there occurs this curious description of a tapestry: "The three tapestries of the Church Militant, wrought in gold, whereon may be seen represented God Almighty seated

in majesty, and around him many cardinals, and below him many princes who present to him a church."

Household luxury in England is indicated by a quaint writer in 1586: "In noblemen's houses," he says, "it is not rare to see abundance of arras, rich hangings, of tapestrie . . . Turkie wood, pewter, brasse, and fine linen. . . . In times past the costly furniture stayed there, whereas now it is discarded yet lower, even unto the inferior artificers, and many farmers . . . have for the most part learned to garnish their beds with tapestries and hangings, and their tables with carpetts and fine napery."

Henry VIII. was devoted to tapestry collecting, also. An agent who was buying for him in the Netherlands in 1538, wrote to the king: "I have made a stay in my hands of two hundred ells of goodly tapestry; there hath not been brought this twenty year eny so good for the price." Henry VIII. had in his large collection many subjects, among them such characteristic pieces as: "ten peeces of the rich story of King David" (in which Bathsheba doubtless played an important part), "seven peeces of the Stories of Ladies," "A peece with a man and woman and a flagon," "A peece of verdure . . . having poppinjays at the nether corners," "One peece of Susannah," "Six fine new tapestries of the History of Helena and Paris."

A set of six "verdure" tapestries was owned by Cardinal Wolsey, which "served for the hanging of Durham Hall of inferior days." The hangings in a hall

in Chester are described as depicting "Adam, Noe, and his Shyppe." In 1563 a monk of Canterbury was mentioned as a tapestry weaver. At York, Norwich, and other cities, were also to be found "Arras Workers" during the sixteenth century.

There was an amusing law suit in 1598, which was brought by a gentleman, Charles Lister, against one Mrs. Bridges, for accepting from him, on the understanding of an engagement in marriage, a suite of tapestries for her apartment. He sued for the return of his gifts!

Among the State Papers of James I., there is a letter in which the King remarks "Sir Francis Crane desires to know if my baby will have him to hasten the making of that suite of tapestry that he commanded him."

In Florence, the art flourished under the Medici. In 1546 a regular Academy of instruction in tapestry weaving was set up, under the direction of Flemish masters. All the leading artists of the Golden Age furnished designs which, though frequently inappropriate for being rendered in textile, were fine pictures, at any rate. In Venice, too, there were work shops, but the influence of Italy was Flemish in every case so far as technical instruction was concerned. The most celebrated artists of the Renaissance made cartoons: Raphael, Giulio Romano, Jouvenet, Le Brun, and numerous others, in various countries.

The Gobelins work in Paris was inaugurated in the fifteenth century under Jean Gobelins, a native of Rheims. His son, Philibert, and later, many descend-

paris
paris
Mil v^c ans xl et ix passez Du deluge: paris le noble roy
Dithuytiesme: fonda en grand arroy Ville et cite de paris belle assez
Deuant qua rõme eust des gens amassez Vi^c cinquãte et vm ans comecroy

ants persevered steadily at the work; the art prospered under Francis I., the whole force of tapestry weavers being brought together at Fontainebleau, and under Henry II., the direction of the whole was given to the celebrated artist Philibert Delorme. In 1630 the Gobelins was fully established as a larger plant, and has never made another move. The work has increased ever since those days, on much the same general lines. Celebrated French artists have designed tapestries: Watteau, Boucher, and others were interpreted by the brilliant manager whose signature appears on the works, Cozette, who was manager from 1736 until 1792. With this technical perfection came the death of the art of tapestry: the pictures might as well have been painted on canvas, and all feeling for the material was lost, so that the naïve charm of the original workers ceased to be a part of the production.

Among European collections now visible, the best is in Madrid, where over six hundred tapestries may be seen, chiefly Flemish, of the fifteenth and sixteenth centuries. The collection at the Pitti Palace in Florence comprises six hundred, while in the Vatican are preserved the original Raphael tapestries. South Kensington Museum, too, is rich in interesting examples of various schools. It is a very helpful collection to students, especially, although not so large as some others.

In 1663, "two well intended statutes" were introduced dealing with curiously opposite matters: one was to encourage linen and tapestry manufacture in

England, and the other was " for regulating the packing of herrings! "

The famous English Mortlake tapestry manufactory was not established until the seventeenth century, and that is rather late for us. The progress of craftsmanship has been steady, especially at the Gobelins in France. Many other centres of industry developed, however, in various countries. The study of modern tapestry is a branch by itself with which we are unable to concern ourselves now.

CHAPTER VI

EMBROIDERIES

The materials used as groundwork for mediæval embroideries were rich in themselves. Samit was the favourite — shimmering, and woven originally of solid flat gold wire. Ciclatoun was also a brilliant textile, as also was Cendal. Cendal silk is spoken of by early writers.

The first use of silk is interesting to trace. A monopoly, a veritable silk trust, was established in 533, in the Roman Empire. Women were employed at the Court of Justinian to preside over the looms, and the manufacture of silk was not allowed elsewhere. The only hindrance to this scheme was that the silk itself had to be brought from China. But in the reign of Justinian, two monks who had been travelling in the Orient, brought to the emperor, as curiosities, some silkworms and cocoons. They obtained some long hollow walking sticks, which they packed full of silkworms' eggs, and thus imported the producers of the raw material. The European silk industry, in fabrics, embroideries, velvets, and such commodities, may owe its origin to this bit of monastic enterprise in 550.

Silk garments were very costly, however, and it was

not every lady in early times who could have such luxuries. It is said that even the Emperor Aurelian refused his wife her request for just one single cloak of silk, saying: "No, I could never think of buying such a thing, for it sells for its weight in gold!"

Fustian and taffeta were less costly, but frequently used in important work, as also were sarcenet and camora. Velvet and satin were of later date, not occurring until the thirteenth and fourteenth centuries. Baudekin, a good silk and golden weave, was very popular.

Cut velvets with elaborate patterns were made in Genoa. The process consisted in leaving the main ground in the original fine rib which resulted from weaving, while in the pattern these little ribs were split open, making that part of a different ply from the rest of the material, in fact, being the finished velvet as we now know it, while the ground remained uncut, and had more the appearance of silk reps. Velvet is first mentioned in England in 1295, but probably existed earlier on the Continent.

Both Roger de Wendover and Matthew Paris mention a stuff called "imperial:" it was partly gold in weave, but there is some doubt as to its actual texture.

Baudekin was a very costly textile of gold and silk which was used largely in altar coverings and hangings, such as dossals; by degrees the name became synonymous with "baldichin," and in Italy the whole altar canopy is still called a *baldachino.*

During Royal Progresses the streets were always hung with rich cloth of gold. As Chaucer makes allusion to streets

> "By ordinance throughout the city large
> Hanged with cloth of gold, and not with serge,"

so Leland tells how the Queen of Henry VII. was conducted to her coronation and "all the stretes through which she should pass were clenely dressed . . . with cloths of tapestry and Arras, and some stretes, as Cheepe, hanged with rich cloths of gold, velvetts, and silks." And in Machyn's Diary, he says that "as late as 1555 at Bow church in London, was hangyd with cloth of gold and with rich Arras."

The word "satin" is derived from the silks of the Mediterranean, called "aceytuni," which became "zetani" in Italian, and gradually changed through French and English influence, to "satin." The first mention of it in England is about 1350, when Bishop Grandison made a gift of choice satins to Exeter Cathedral.

The Dalmatic of Charlemagne is embroidered on blue satin, although this is a rare early example of the material. At Constantinople, also, as early as 1204, Baldwin II. wore satin at his coronation. It was nearly always made in a fiery red in the early days. It is mentioned in a Welsh poem of the thirteenth century.

Benjamin of Tudela, a traveller who wrote in 1161, mentions that the Jews were living in great numbers in Thebes, and that they made silks there at that time.

There is record that in the late eleventh century a Norman Abbot brought home from Apulia a quantity of heavy and fine silk, from which four copes were made. French silks were not remarkable until the sixteenth century, while those of the Netherlands led all others as early as the thirteenth.

Shot silks were popular in England in the sixteenth century. York Cathedral possessed, in 1543, a "vestment of changeable taffety for Good Friday."

St. Dunstan is reported to have once "tinted" a sacerdotal vestment to oblige a lady, thus departing from his regular occupation as goldsmith to perform the office of a dyer of stuff.

Many rich mediæval textiles were ornamented by designs, which usually show interlaces and animal forms, and sometimes conventional floral ornament. Patterns originated in the East, and, through Byzantine influence, in Italy, and Saracenic in Spain, they were adopted and modified by Europeans. In 1295 St. Paul's in London owned a hanging "patterned with wheels and two-headed birds." Sicilian silks, and many others of the contemporary textiles, display variations of the "tree of life" pattern. This consists of a little conventional shrub, sometimes hardly more than a "budding rod," with two birds or animals advancing vis-à-vis on either side. Sometimes these are two peacocks; often lions or leopards and frequently griffins and various smaller animals. Whenever one sees a little tree or a single stalk, no matter how conventionally treated, with a

couple of matched animals strutting up to each other on either side, this pattern owes its origin to the old tradition of the decorative motive usual in Persia and in Byzantium, the Tree of Life, or Horu. The origin of patterns does not come within our scope, and has been excellently treated in the various books of Lewis Day, and other writers on this subject.

Textiles of Italian manufacture may be seen represented in the paintings of the old masters: Orcagna, Francia, Crivelli, and others, who delighted in the rendering of rich stuffs; later, they abound in the creations of Veronese and Titian. A "favourite Italian vegetable," as Dr. Rock quaintly expresses it, is the artichoke, which, often, set in oval forms, is either outlined or worked solidly in the fabric.

Almeria was a rich city in the thirteenth century, noted for its textiles. A historian of that period writes: "Christians of all nations came to its port to buy and to sell. From thence . . . they travelled to other parts of the interior of the country, where they loaded their vessels with such goods as they wanted. Costly silken robes of the brightest colours are manufactured in Almeria." Granada was famous too, a little later, for its silks and woven goods. About 1562 Navagiero wrote: "All sorts of cloth and silks are made there: the silks made at Granada are much esteemed all over Spain; they are not so good as those that come from Italy. There are several looms, but they do not yet know how to work them well. They make good taffetas, sarcenet,

and silk serges. The velvets are not bad, but those that are made at Valencia are better in quality."

Marco Polo says of the Persians in certain sections; "There are excellent artificers in the cities, who make wonderful things in gold, silk, and embroidery. . . . In veins of the mountains stones are found, commonly called turquoises, and other jewels. There also are made all sorts of arms and ammunition for war, and by the women excellent needlework in silks, with all sorts of creatures very admirably wrought therein." Marco Polo also reports the King of Tartary as wearing on his birthday a most precious garment of gold, while his barons wore the same, and had given them girdles of gold and silver, and "pearls and garments of great price." This Khan also "has the tenths of all wool, silk, and hemp, which he causes to be made into clothes, in a house for that purpose appointed: for all trades are bound one day in the week to serve him." He clothed his armies with this tythe wool.

In Anglo-Saxon times a fabric composed of fine basket-weaving of thin flat strips of pure gold was used; sometimes the flat metal was woven on a warp of scarlet silk threads. Later strips of gilded parchment were fraudulently substituted for the genuine flat metal thread. Often the woof of gold strips was so solid and heavy that it was necessary to have a silk warp of six strands to support its wear.

Gold cloth was of varying excellence, however: among the items in an inventory for the Earl of Warwick in

the time of Henry VI., there is allusion to "one coat for My Lord's body, beat with fine gold; two coats for heralds, beat with demi-gold."

It is generally assumed that the first wire-drawing machines were made about 1360 in Germany; they were not used in England until about 1560. Theophilus, however, in the eleventh century, tells "Of the instruments through which wires are drawn," saying that they consist of "two irons, three fingers in breadth, narrow above and below, everywhere thin, and perforated with three or four ranges, through which holes wires are drawn." This would seem to be a primitive form of the more developed instrument. Wire drawing was introduced into England by Christian Schutz about 1560. In 1623 was incorporated in London, "The Worshipful Company of Gold and Silver Wire-Drawers." The preamble of their charter reads thus: "The Trade Art of Drawing and flattening of gold and silver wire, and making and spinning of gold and silver thread and stuffe." It seems as though there were some kind of work that corresponded to wire-drawing, earlier than its supposed introduction, for a petition was sent to King Henry VI. in 1423, by the "wise and worthy Communes of London, & the Wardens of Broderie in the said Citie," requesting protection against "deceit and default in the work of divers persons occupying the craft of embroidery;" and in 1461 "An act of Common Council was passed respecting the gold-drawers," showing that the art was known to some extent and

practised at that time. In the reign of George II., in 1742, "An act to prevent the counterfeiting of gold and silver lace and for the settling and adjusting the proportions of fine silver and silk, and for the better making of gold and silver lace," was passed.

Ecclesiastical vestments were often trimmed with heavy gold fringe, knotted "fretty wise," and the embroideries were further enriched with jewels and small plaques of enamel. Matthew Paris relates a circumstance of certain garments being so heavily weighted with gold that the clergy could not walk in them, and, in order to get the solid metal out again, it was necessary to burn the garments and thus melt the gold.

Jewelled robes were often seen in the Middle Ages; a chasuble is described as having been made for the Abbot of St. Albans, in the twelfth century, which was practically covered with plaques of gold and precious stones. Imagine the unpleasant physical sensation of a bishop in 1404, who was obliged to wear a golden mitre of which the ground was set with large pearls, bordered with balas rubies, and sapphires, and trimmed with indefinite extra pearls!

The body of St. Cecilia, who was martyred in 230, was interred in a garment of pure woven gold.

The cloth of solid gold which was used for state occasions was called "tissue;" the thin paper in which it was wrapped when it was laid away was known as tissue paper, and Mr. William Maskell states that the name

has clung to it, and that is why thin paper is called "tissue paper" to-day.

St. Peter's in Rome possessed a great pair of silver curtains, which hung at the entrance to the church, given by Pope Stephen IV. in the eighth century.

Vitruvius tells how to preserve the gold in old embroidery, or in worn-out textiles where the metal has been extensively used. He says: "When gold is embroidered on a garment which is worn out, and no longer fit for use, the cloth is burnt over the fire in earthen pots. The ashes are thrown into water, and quicksilver added to them. This collects all particles of gold, and unites with them. The water is then poured off, and the residuum placed in a cloth, which, when squeezed with the hands suffers the liquid quicksilver to pass through the pores of the cloth, but retains the gold in a mass within it."

An early allusion to asbestos woven as a cloth is made by Marco Polo, showing that fire-proof fabrics were known in his time. In the province of Chinchintalas, "there is a mountain wherein are mines of steel . . . and also, as was reported, salamanders, of the wool of which cloth was made, which if cast into the fire, cannot burn. But that cloth is in reality made of stone in this manner, as one of my companions a Turk, named Curifar, a man endued with singular industry, informed me, who had charge of the minerals in that province. A certain mineral is found in that mountain which yields threads not unlike wool; and these being dried

in the sun, are bruised in a brazen mortar, and afterwards washed, and whatsoever earthy substance sticks to them is taken away. Lastly, these threads are spun like ordinary wool, and woven into cloth. And when they would whiten those cloths, they cast them into the fire for an hour, and then take them out unhurt whiter than snow. After the same manner they cleanse them when they have taken any spots, for no other washing is used to them, besides the fire."

In the Middle Ages it would have been possible, as Lady Alford suggests, to play the game "Animal, Vegetable, or Mineral" with textiles only! Between silk, hemp, cotton, gold, silver, wool, flax, camel's hair, and asbestos, surely the three elements all played their parts.

Since the first record of Eve having "sewn fig leaves together to make aprons," women have used the needle in some form. In England, it is said that the first needles were made by an Indian, in 1545, before which time they were imported. The old play, "Gammer Gurton's Needle," is based upon the extreme rarity of these domestic implements, and the calamity occasioned in a family by their loss. There is a curious old story about a needle, which was supposed to possess magic powers. This needle is reported to have worked at night while its owner was resting, saving her all personal responsibility about her mending. When the old lady finally died, another owner claimed this charmed needle, and began at once to test its powers. But, do

what she would, she was unable to force a thread through its obstinate eye. At last, after trying all possible means to thread the needle, she took a magnifying glass to examine and see what the impediment was, and, lo! the eye of the needle was filled with a great tear, — it was weeping for the loss of its old mistress, and no one was ever able to thread it again!

Embroidery is usually regarded as strictly a woman's craft, but in the Middle Ages the leading needleworkers were often men. The old list of names given by Louis Farcy has almost an equal proportion of workers of both sexes. But the finest work was certainly accomplished by the conscientious dwellers in cloisters, and the nuns devoted their vast leisure in those days to this art. Fuller observes: "Nunneries were also good shee-schools, wherein the girls of the neighbourhood were taught to read and work . . . that the sharpnesse of their wits and suddennesse of their conceits (which even their enemies must allow unto them!) might by education be improved into a judicious solidity." In some of these schools the curriculum included "Reading and sewing, threepence a week: a penny extra for manners." An old thirteenth century work, called the "Kleine Heldenbuch," contains a verse which may be thus translated:

> "Who taught me to embroider in a frame with silk?
> And to draw and design the wild and tame
> Beasts of the forest and field?
> Also to picture on plain surface:

Round about to place golden borders,
A narrow and a broader one,
With stags and hinds lifelike."

A study of historic embroidery should be preceded by a general knowledge of the principle stitches employed.

One of the simplest forms was chain stitch, in which one stitch was taken through the loop of the stitch just laid. In the Middle Ages it was often used. Sometimes, when the material was of a loose weave, it was executed by means of a little hook — the probable origin of crochet.

Tapestry stitch, of which one branch is cross-stitch, was formed by laying close single stitches of uniform size upon a canvas specially prepared for this work.

Fine embroidery in silk was usually executed in long smooth stitches of irregular length, which merged into each other. This is generally known as satin stitch, for the surface of the work is that of a satin texture when the work is completed. This was frequently executed upon linen, and then, when the entire surface had been hidden by the close silk stitches, it was cut out and transferred on a brocade background, this style of rendering being known as appliqué. Botticelli recommended this work as most durable and satisfactory: it is oftenest associated with church embroidery. A simple appliqué was also done by cutting out pieces of one material and applying them to another, hiding the edge-joinings by couching on a cord. As an improvement upon painted banners to be used in processions, Botticelli introduced

EMBROIDERY ON CANVAS, 16TH CENTURY, SOUTH KENSINGTON MUSEUM

this method of cutting out and resetting colours upon a different ground. As Vasari says: "This he did that the colors might not sink through, showing the tint of the cloth on each side." But Dr. Rock points out that it is hardly fair to earlier artificers to give the entire credit for this method of work to Botticelli, since such cut work or appliqué was practised in Italy a hundred years before Botticelli was born!

Sometimes solid masses of silk or gold thread were laid in ordered flatness upon a material, and then sewn to it by long or short stitches at right angles. This is known as couching, and is a very effective way of economizing material by displaying it all on the surface. As a rule, however, the surface wears off somewhat, but it is possible to execute it so that it is as durable as embroidery which has been rendered in separate stitches.

In Sicily it was a common practice to use coral in embroideries as well as pearls. Coral work is usually called Sicilian work, though it was also sometimes executed in Spain.

The garments worn by the Byzantines were very ornate; they were made of woven silk and covered with elaborate devices. In the fourth century the Bishop of Amasia ridiculed the extravagant dress of his contemporaries. "When men appear in the streets thus dressed," he says, "the passers by look at them as at painted walls. Their clothes are pictures, which little children point out to one another. The saintlier sort wear likenesses of Christ, the Marriage of Galilee, and

Lazarus raised from the dead." Allusion was made in a sermon: "Persons who arrayed themselves like painted walls" "with beasts and flowers all over them" were denounced!

In the early Dark Ages there was some prejudice against these rich embroideries. In the sixth century the Bishop St. Cesaire of Arles forbade his nuns to embroider robes with precious stones or painting and flowers. King Withaf of Mercia willed to the Abbey of Croyland "my purple mantle which I wore at my Coronation, to be made into a cope, to be used by those who minister at the holy altar: and also my golden veil, embroidered with the Siege of Troy, to be hung up in the Church on my anniversary." St. Asterius preached to his people, "Strive to follow in your lives the teachings of the Gospel, rather than have the miracles of Our Redeemer embroidered on your outward dress!" This prejudice, however, was not long lived, and the embroidered vestments and garments continued to hold their popularity all through the Middle Ages and the Renaissance.

It has been said on grave authority that "Woman is an animal that delights in the toilette," while Petrarch, in 1366, recognized the power of fashion over its votaries. "Who can see with patience," he writes, "the monstrous fantastical inventions which people of our times have invented to deform rather than adorn their persons? Who can behold without indignation their long pointed shoes, their caps with feathers, their hair

twisted and hanging down like tails, . . . their bellies so cruelly squeezed with cords that they suffer as much pain from vanity as the martyrs suffered for religion!" And yet who shall say whether a "dress-reform" Laura would have charmed any more surely the eye of the poet?

Chaucer, in England, also deplores the fashions of his day, alluding to the "sinful costly array of clothing, namely, in too much superfluity or else indisordinate scantiness!" Changing fashions have always been the despair of writers who have tried to lay down rules for æsthetic effect in dress. "An Englishman," says Harrison, "endeavouring some time to write of our attire . . . when he saw what a difficult piece of work he had taken in hand, he gave over his travail, and onely drue a picture of a naked man unto whom he gave a pair of shears in the one hand and a piece of cloth in the other, to the end that he should shape his apparel after such fashion as himself liked, sith he could find no garment that could please him any while together: and this he called an Englishman."

Edward the Confessor wore State robes which had been beautifully embroidered with gold by his accomplished wife, Edgitha. In the Royal Rolls of Edward III., in 1335, we find allusion to two vests of green velvet embroidered respectively with sea sirens and coats of arms. The tunics worn over armour offered great opportunities to the needleworker. They were richly embroidered, usually in heraldic style. When Symon,

Bishop of Ely, performed the ceremony of Churching for Queen Philippa, the royal dame bestowed upon him the gown which she wore on that occasion; it is described as a murrey-coloured velvet, powdered with golden squirrels, and was of such voluminous pattern that it was cut over into three copes! Bridal gowns were sometimes given to churches, as well.

St. Louis of France was what might be called temperate in dress. The Sire de Joinville says he "never saw a single embroidered coat or ornamented saddle in the possession of the king, and reproved his son for having such things. I replied that he would have acted better if he had given them in charity, and had his dress made of good sendal, lined and strengthened with his arms, like as the king his father had done!"

At the marriage of the Lord of Touraine in 1389, the Duke of Burgundy presented magnificent habits and clothing to his nephew the Count of Nevers: among these were tunics, ornamented with embroidered trees conventionally displayed on their backs, fronts, and sleeves; others showed heraldic blazonry, while a blue velvet tunic was covered with balas rubies set in pearls, alternating with suns of solid gold with great solitaire pearls as centres. Again, in 1390, when the king visited Dijon, he presented to the same nephew a set of harnesses for jousting. Some of them were composed largely of sheets of beaten gold and silver. In some gold and silver marguerites were introduced also.

Savonarola reproved the Florentine nuns for employ-

ing their valuable time in manufacturing "gold laces with which to adorn persons and houses." The Florentine gold lace was very popular in England, in the days of Henry VIII., and later the art was taken up by the "wire-drawers" of England, and a native industry took the place of the imported article. Among prohibited gowns in Florence was one owned by Donna Francesca degli Albizi, "a black mantle of raised cloth: the ground is yellow, and over it are woven birds, parrots, butterflies, red and white roses, and many figures in vermilion and green, with pavilions and dragons, and yellow and black letters and trees, and many other figures of various colours, the whole lined with cloth in hues of black and vermilion." As one reads this description, it seems as though the artistic sense as much as conscientious scruples might have revolted and led to its banishment!

Costumes for tournaments were also lavish in their splendour. In 1467 Benedetto Salutati ordered made for such a pageant all the trappings for two horses, worked in two hundred pounds of silver by Pollajuolo; thirty pounds of pearls were also used to trim the garments of the sergeants. No wonder Savonarola was enthusiastic in his denunciation of such extravagance.

Henry VIII. had "a pair of hose of purple silk and Venice gold, woven like a caul." For one of his favoured lady friends, also, there is an item, of a certain sum "paid, for one pound of gold for embroidering a nightgown."

The unrivalled excellence of English woollen cloths was made manifest at an early period. There was a fabric produced at Norwich of such superiority that a law was passed prohibiting monks from wearing it, the reason being that it was considered "smart enough for military men!" This was in 1422. The name of Worsted was given to a certain wool because it was made at Worsted, a town in Norfolk; later the "worsted thread" was sold for needleworkers.

Ladies made their own gold thread in the Middle Ages by winding a fine flat gold wire, scarcely of more body than a foil, around a silk thread.

Patches were embroidered into place upon such clothes or vestments as were torn: those who did this work were as well recognized as the original designers, and were called "healers" of clothes!

Embroidered bed hangings were very much in order in mediæval times in England. In the eleventh century there lived a woman who had emigrated from the Hebrides, and who had the reputation for witchcraft, chiefly based upon the unusually exquisite needlework on her bed curtains! The name of this reputed sorceress was Thergunna. Bequests in important wills indicate the sumptuous styles which were usual among people of position. The Fair Maid of Kent left to her son her "new bed curtains of red velvet, embroidered with ostrich feathers of silver, and heads of leopards of gold," while in 1380 the Earl of March bequeathed his "large bed of black satin embroidered with white

lions and gold roses, and the escutcheons of the arms of Mortimer and Ulster." This outfit must have resembled a Parisian "first class" funeral! The widow of Henry II. slept in a sort of mourning couch of black velvet, which must have made her feel as if she too were laid out for her own burial!

A child's bedquilt was found mentioned in an inventory of furniture at the Priory of Durham, in 1446, which was embroidered in the four corners with the Evangelistic symbols. In the "Squier of Lowe Degree," a fifteenth century romance, there is allusion to a bed, of which the head sheet is described "with diamonds set and rubies bright." The king of England, in 1388, refers, in a letter, to "a bed of gold cloth." Wall hangings in bedrooms were also most elaborate, and the effect of a chamber adorned with gold and needlework must have been fairly regal. An embroiderer named Delobel made a set of furnishings for the bedroom of Louis XIV. the work upon which occupied three years. The subject was the Triumph of Venus.

In South Kensington Museum there is a fourteenth century linen cloth of German workmanship, upon which occurs the legend of the unicorn, running for protection to a maiden. An old Bestiary describes how the unicorn, or as it is there called, the "monocerus," "is an animal which has one horn on its head: it is caught by means of a virgin." The unicorn and virgin, with a hunter in pursuit, is quite a favourite bit of symbolism in the middle ages.

Another interesting piece of German embroidery in South Kensington is a table cloth, worked on heavy canvas, in heraldic style: long decorative inscriptions embellish the corners. A liberal translation of these verses is given by Dr. Rock, some of the sentences being quaint and interesting to quote. Evidently the embroideress indulged in autobiography in the following: "And she, to honour the esquire her husband, wished to adorn and increase his house furniture, and there has worked, with her own hand, this and still many other pretty cloths, to her memory." And in another corner, "Now follows here my own birthday. When one wrote 1565 my mother's heart was gladdened by my first cry. In the year 1585 I gave birth my self to a daughter. Her name is Emilia Catharina, and she has been a proper and praiseworthy child." Then, to her children the following address is directed: "Do not forget your prayers in the morning. And be temperate in your pleasures. And make yourselves acquainted with the Word of God. . . . I beseech you to be sincere in all matters. That will make you great and glorious. Honour everybody according to his station: it will make you honourably known. You, my truly beloved sons, beware of fiery wines . . . you, my truly beloved daughters, preserve and guard your honour, and reflect before you do anything: many have been led into evil by acting first and thinking afterwards." In another compartment, a lament goes up in which she deplores the death of her husband. "His age was sixty and eight

years," she says. "The dropsy has killed him. I, his afflicted Anna Blickin von Liechtenperg who was left behind, have related it with my hand in this cloth, that might be known to my children this greater sorrow which God has sent me." The cloth is a naïve and unusual record of German home life.

Ecclesiastical embroidery began in the fourth century. In earliest days the work was enhanced with quantities of gold thread. The shroud in which St. Cuthbert's body was wrapped is a mass of gold: a Latin inscription on the vestments in which the body was clad may be thus translated: "Queen to Alfred's son and successor, Edward the Elder, was one Aelflaed, who caused this stole and maniple to be made for a gift to Fridestan consecrated Bishop of Winchester, A. D. 905." The maniple is of "woven gold, with spaces left vacant for needlework embroidery." Such garments for burial were not uncommon; but they have as a rule perished from their long residence underground. St. Cuthbert's vestments are splendid examples of tenth century work in England. After the death of King Edward II., and his wife Aelflaed, Bishop Frithestan also having passed away, Athelstan, as King, made a pilgrimage to the shrine of St. Cuthbert and bestowed these valuable embroideries there. They were removed from the body of the saint in 1827. The style of the work inclines to Byzantine. The Saxon embroideries must have been very decorative: a robe is described by Aldhelme in 709, as "of a most delicate thread of purple, adorned with

black circles and peacocks." At the church at Croyland some vestments were decorated with birds of gold cut out and appliqué and at Exeter they had "nothing about them but true needlework."

In the "Liber Eliensis," in the Muniment room at Ely, is an account of a gift to the church by Queen Emma, the wife of King Knut, who "on a certain day came to Ely in a boat, accompanied by his wife the Queen Emma, and the chief nobles of his kingdom." This royal present was "a purple cloth worked with gold and set with jewels for St. Awdry's shrine," and the Monk Thomas assures us that "none other could be found in the kingdom of the English of such richness and beauty of workmanship."

The various stitches in English work had their several names, the opus plumarium, or straight overlapping stitches, resembling the feathers of a bird; the opus pluvarium, or cross stitch, and many others. A great deal of work was accomplished by means of appliqué in satin and silk, and sometimes the ground was painted, as has already been described in Italian work. In the year 1246 Matthew Paris writes: "About this time the Lord Pope, Innocent IV., having observed that the ecclesiastical ornaments of some Englishmen, such as choristers' copes and mitres, were embroidered in gold thread, after a very desirable fashion, asked where these works were made, and received in answer, 'England.' Then," said the Pope, "England is surely a garden of delight for us; it is truly a never failing Spring, and

there where many things abound much may be extorted." This far sighted Pope, with his semi-commercial views, availed himself of his discovery.

In the days of Anastatius, ecclesiastical garments were spoken of by name according to the motive of their designs: for instance, the "peacock garment," the "elephant chasuble," and the "lion cope." Fuller tells of the use of a pall as an ecclesiastical vestment, remarking tersely: "It is made up of lamb's wool and superstition."

Mediæval embroiderers in England got into certain habits of work, so that there are some designs which are almost as hall-marks to English work; the Cherubim over the wheel is especially characteristic, as is also the vase of lilies, and various heraldic devices which are less frequently found in the embroidered work of European peoples.

The Syon Cope is perhaps the most conspicuous example of the mediæval embroiderer's art. It was made by nuns about the end of the thirteenth century, in a convent near Coventry. It is solid stitchery on a canvas ground, "wrought about with divers colours" on green. The design is laid out in a series of interlacing square forms, with rounded and barbed sides and corners. In each of these is a figure or a scriptural scene. The orphreys, or straight borders which go down both fronts of the cope, are decorated with heraldic charges. Much of the embroidery is raised, and wrought in the stitch known as Opus Anglicanum. The effect

was produced by pressing a heated metal knob into the work at such points as were to be raised. The real embroidery was executed on a flat surface, and then bossed up by this means until it looked like bas-relief. The stitches in every part run in zig-zags, the vestments, and even the nimbi about the heads, are all executed with the stitches slanting in one direction, from the centre of the cope outward, without consideration of the positions of the figures. Each face is worked in circular progression outward from the centre, as well. The interlaces are of crimson, and look well on the green ground. The wheeled Cherubim is well developed in the design of this famous cope, and is a pleasing decorative bit of archaic ecclesiasticism. In the central design of the Crucifixion, the figure of the Lord is rendered in silver on a gold ground. The anatomy is according to the rules laid down by an old sermonizer, in a book entitled "The Festival," wherein it is stated that the body of Christ was "drawn on the cross as a skin of parchment on a harrow, so that all his bones might be told." With such instruction, there was nothing left for the mediæval embroiderers but to render the figure with as much realistic emaciation as possible.

The heraldic ornaments on the Syon Cope are especially interesting to all students of this graceful art. It is not our purpose here to make much allusion to this aspect of the work, but it is of general interest to know that on the orphreys, the devices of most of the noble families of that day appear.

DETAIL OF THE SYON COPE

English embroidery fell off greatly in excellence during the Wars of the Roses. In the later somewhat degenerate raised embroidery, it was customary to represent the hair of angels by little tufted curls of auburn silk!

Many of the most important examples of ancient ecclesiastical embroidery are in South Kensington Museum. A pair of orphreys of the fifteenth century, of German work (probably made at Cologne), shows a little choir of angels playing on musical instruments. These figures are cut out and applied on crimson silk, in what was called "cut work." This differed entirely from what modern embroiderers mean by cut work, as has been explained.

The Dalmatic of Charlemagne is given by Louis Farcy to the twelfth century. He calls it the Dalmatic of Leo III. But Lady Alford claims for this work a greater antiquity. Certainly, as one studies its details, one is convinced that it is not quite a Gothic work, nor yet is it Byzantine; for the figures have all the grace of Greek work prior to the age of Byzantine stiffness. It is embroidered chiefly in gold, on a delicate bluish satin ground, and has not been transferred, although it has been carefully restored. The central ornament on the front is a circular composition, and the arrangement of the figures both here and on the back suggests that Sir Edward Burne Jones must have made a study of this magnificent dalmatic, from which it would seem that much of his inspiration might have been drawn. The composition is singularly restful and rhythmical.

The little black outlines to the white silk faces, and to the glowing figures, give this work a peculiarly decorative quality, not often seen in other embroideries of the period. It is unique and one of the most valuable examples of its art in the world. It is now in the Treasury of the Vatican. When Charlemagne sang the Gospel at High Mass on the day of his Coronation, this was his vestment. It must have been a strangely gorgeous sight when Cola di Rienzi, according to Lord Lindsay, took this dalmatic, and placed it over his armour, and, with his crown and truncheon, ascended to the palace of the Popes!

A very curious Italian piece of the fourteenth century is an altar frontal, on which the subjects introduced are strange. It displays scenes from the life of St. Ubaldo, with some incidents also in that of St. Julian Hospitaler. St. Ubaldo is seen forgiving a mason who, having run a wall across his private grounds, had knocked the saint down for remonstrating. Another scene shows the death bed of the saint, and the conversion of a possessed man at the foot of the bed: a lady is throwing her arms above her head in astonishment while the evil spirit flies from its victim into the air. Later, the saint is seen going to the grave in a cart drawn by oxen.

The peacock was symbolical both of knightly vigilance and of Christian watchfulness. An old Anglo-Norman, Osmont, writes: "The eye-speckled feathers should warn a man that never too often can he have his eyes wide open, and gaze inwardly upon his own heart." These

DALMATIC OF CHARLEMAGNE

dear people were so introspective and self-conscious, always looking for trouble — in their own motives, even — that no doubt many good impulses perished unnoticed, while the originator was chasing mental phantoms of heresy and impurity.

Painting and jewelry were sometimes introduced in connection with embroideries. In the celebrated Cope of St. John Lateran, the faces and hands of the personages are rendered in painting; but this method was more generally adopted in the sixteenth and seventeenth centuries, when sincerity counted for less than effect, and when genuine religious fervour for giving one's time and best labour to the Lord's service no longer dominated the workers. Gold thread was used extensively in English work, and spangles were added at quite an early period, as well as actual jewels set in floral designs. The finest work was accomplished in the Gothic period, before the Renaissance came with its aimless scrolls to detract from the dignity of churchly ornament.

In the sixteenth century the winged angels have often a degenerate similitude to tightly laced coryphées, who balance themselves upon their wheels as if they were performing a vaudeville turn. They are not as dignified as their archaic predecessors.

Very rich funeral palls were in vogue in the sixteenth century. A description of Prince Arthur's burial in 1502 relates how numerous palls were bestowed, apparently much as friends would send wreaths or im-

portant floral tributes to-day. "The Lord Powys went to the Queere Doore," writes Leland, "where two gentlemen ushers delivered him a riche pall of cloth of gould of tissue, which he offered to the corpse, where two Officers of the Armes received it, and laid it along the corpse. The Lord Dudley in like manner offered a pall . . . the Lord Grey Ruthen offered another, and every each of the three Earls offered to the corpse three palls of the same cloth of gould . . . all the palls were layd crosse over the corpse."

The account of the obsequies of Henry VII. also contains mention of these funeral palls: the Earls and Dukes came in procession, from the Vestry, with "certain palls, which everie of them did bring solemnly between their hands and coming in order one before another as they were in degree, unto the said herse, they kissed their said palls . . . and laid them upon the King's corpse." At Ann of Cleves' burial the same thing was repeated, in 1557. Finally these rich shimmering hangings came to be known in England as "cloth of pall," whether they were used for funerals or coronations, for bridals or pageants.

The London City Guilds possessed magnificent palls; especially well known is that of the Fishmongers, with its kneeling angels swinging censers; this pall is frequently reproduced in works on embroidery. It is embroidered magnificently with angels, saints, and strange to say, mermaids. The peacock's wings of the angels make a most decorative feature in this famous

piece of old embroidery. The Arms of the Company are also emblazoned.

French embroiderers are known by name in many instances; in 1299 allusion was made to "Clement le Brodeur," who furnished a cope for the Count of Artois, and in 1316 a magnificent set of hangings was made for the Queen, by one Gautier de Poulleigny. Nicolas Waquier was armourer and embroiderer to King John in 1352. Among Court workers in 1384 were Perrin Gale, and Henriet Gautier. In the "Book of Rules" by Etienne Boileau, governing the "Embroiderers and embroideresses of the City of Paris," one of the chief laws was that no work should be permitted in the evening, "because the work of the night cannot be so good or so satisfactory as that accomplished in the day." When one remembers the facilities for evening lighting in the middle ages, one fully appreciates the truth of this statement.

Matthew Paris, in his Life of St. Alban, tells of an excellent embroideress, Christine, Prioress of Margate, who lived in the middle of the twelfth century. In the thirteenth century several names occur. Adam de Bazinge made, in 1241, by order of Henry III. of England, a cope for the Bishop of Hereford. Cunegonde, Abbess of Goss, in Styria, accomplished numerous important works in that period. Also, Henry III. employed Jean de Sumercote to make jewelled robes of state.

On a certain thirteenth century chasuble are the words

"Penne fit me" (Penne made me), pointing to the existence of a needleworker of that name. Among the names of the fourteenth century are those of Gautier de Bruceles, Renier de Treit, Gautier de Poulogne, and Jean de Laon, while Jean Harent of Calais is recorded as having worked, for Mme. d'Artois, in 1319, a robe decorated "a bestelettes et a testes." These names prove that the art had been taught in many cities and countries: Ogier de Gant, Jean de Savoie, Etienne le Hongre, and Roger de Varennes, all suggest a cosmopolitan and dispersed number of workers, who finally all appeared in Paris.

René d'Anjou had in his employ a worker in embroidery, named Pierre du Villant. This artist executed a set of needlework pieces for the Cathedral of Angers, of such important proportions that they were known collectively as "La Grande Broderie." In 1462, when they were put in place, a special mass was performed by way of a dedication. The letter which accompanied this princely donation contained the following sentences: "We, René, by the Grace of God . . . give . . . to this church . . . the adornments for a chapell all composd of golden embroidery, comprising five pieces" (which are enumerated) "and an altar cloth illustrated with scenes from the Passion of Our Saviour. . . . Given in our castle in Angers, the fourth day of March, 1462. René."

In 1479 another altar frontal was presented. Two other rich chapels were endowed by René: one was

EMBROIDERY, 15TH CENTURY, COLOGNE

known as La Chapelle Joyeuse, and the other as La Grande Chapelle des Trépassés. It is likely that the same embroiderer executed the pieces of all these.

A guild of embroiderers was in standing in Seville in 1433, where Ordinances were enforced to protect from fraud and otherwise to regulate this industry. The same laws were in existence in Toledo. One of the finest and largest pieces of embroidery in Spain is known as the Tent of Ferdinand and Isabella. This was used in 1488, when certain English Ambassadors were entertained. The following is their description of its use. "After the tilting was over, the majesties returned to the palace, and took the Ambassadors with them, and entered a large room . . . and there they sat under a rich cloth of state of crimson velvet, richly embroidered, with the arms of Castile and Aragon."

A curious effect must have been produced by a piece of embroidery described in the inventory of Charles V., as "two little pillows with savage beasts having the heads of armed men, and garnished with pearls."

After the Reformation it became customary to use ecclesiastical ornaments for domestic purposes. Heylin, in his "History of the Reformation," makes mention of many "private men's parlours" which "were hung with altar cloths, and their tables and beds covered with copes instead of carpetts and coverlids."

Katherine of Aragon, while the wife of Henry VIII., consoled herself in her unsatisfactory life by needlework: it is related that she and her ladies "occupied themselves

working with their own hands something wrought in needlework, costly and artificially, which she intended to the honour of God to bestow upon some churches." Katherine of Aragon was such a devoted needlewoman, in fact, that on one occasion Burnet records that she stepped out to speak to two ambassadors, with a skein of silk about her neck, and explained that she had been embroidering with her ladies when they were announced. In an old sonnet she is thus commemorated:

> "She to the eighth king Henry married was
> And afterwards divorced, when virtuously,
> Although a queen, yet she her days did pass
> In working with the needle curiously."

Queen Elizabeth was also a clever embroiderer; she worked a book-cover for Katherine Parr, bearing the initials K. P., and it is now in the Bodleian Library at Oxford.

Mary Queen of Scots was also said to be skilful with her needle; in fact it seems to have been the consolation of most queens in their restricted existence in those centuries. Dr. Rock considers that the "corporal" which Mary Queen of Scots had bound about her eyes at the time of her execution, was in reality a piece of her own needle-work, probably wrought upon fine linen. Knight, in describing the scene in his "Picturesque History of England," says: "Then the maid Kennedy took a handkerchief edged with gold, in which the Eucharist had formerly been enclosed, and fastened it

over her eyes;" so accounts differ and traditions allow considerable scope for varied preferred interpretation.

It is stated that Catherine de Medicis was fond of needlework, passing her evenings embroidering in silk "which was as perfect as was possible," says Brantôme.

Anne of Brittany instructed three hundred of the children of the nobles at her court, in the use of the needle. These children produced several tapestries, which were presented by the queen to various churches.

The volatile Countess of Shrewsbury, the much married "Bess of Hardwick," was a good embroideress, who worked, probably, in company with the Queen of Scots when that unfortunate woman was under the guardianship of the Earl of Shrewsbury. One of these pieces is signed E. S., and dated 1590.

A form of intricate pattern embroidery in black silk on fine linen was executed in Spain in the sixteenth century, and was known as "black work." Viscount Falkland owns some important specimens of this curious work. It was introduced into England by Katherine of Aragon, and became very popular, being exceedingly suitable and serviceable for personal adornment. The black was often relieved by gold or silver thread.

The Petit Point, or single square stitch on canvas, became popular in England during the reign of Elizabeth. It suggested Gobelins tapestry, on a small scale, when finished, although the method of execution is quite different, being needlework pure and simple.

In Elizabeth's time was incorporated the London

Company of Broderers, which flourished until about the reign of Charles I., when there is a complaint registered that " trade was so much decayed and grown out of use, that a great part of the company, for want of employment, were much impoverished."

Raised embroidery, when it was padded with cotton, was called Stump Work. This was made extensively by the nuns of Little Gidding in the sixteenth and seventeenth centuries. Decided changes and developments took place in the seventeenth and eighteenth centuries, in all forms of embroidery, but these are not for us to consider at present. A study of historic samples alone is most tempting, but there is no space for the intrusion of any subject much later than the Renaissance.

CHAPTER VII

SCULPTURE IN STONE

(*France and Italy*)

SCULPTURE is not properly speaking the "plastic art," as is often understood. The real meaning of sculpture is work which is cut into form, whereas plastic art is work that is moulded or cast into form. Terra cotta, which is afterwards baked, is plastic; and yet becomes hard; thus a Tanagra figurine is an example of plastic art, while a Florentine marble statuette is a product of sculpture. The two are often confounded. We shall allude to them under different heads, taking for our consideration now only such sculpture as is the result of cutting in the stone. The work of Luca Della Robbia will not be treated as sculpture in this book. Luca Della Robbia is a worker in plastic art, while Adam Kraft, hewing directly at the stone, is a sculptor.

We have no occasion to study the art of the sculptor who produces actual statues; only so far as sculpture is a companion to architecture, and a decorative art, does it come within the scope of the arts and crafts. Figure sculpture, then, is only considered when strictly of a monumental character.

In attacking such a subject as sculpture in the Middle Ages it is impossible to do more than indicate the general tendencies in different countries. But there are certain defined characteristics an observance of which will make clear to any reader various fundamental principles by which it is easy to determine the approximate age and style of works.

In the first place, the great general rule of treatment of stone in the North and in the South is to be mentioned. In the Northern countries, France, Germany, and England, the stone which was employed for buildings and their decorations was obtainable in large blocks and masses; it was what, for our purposes, we will call ordinary stone, and could be used in the solid; therefore it was possible for carving in the North to be rendered as deeply and as roundly as the sculptor desired. In Southern countries, however, and chiefly in Italy, the stone used for building was not ordinary, but semi-precious stone. Marble, porphyry, and alabaster were available; and the use of such material led to a different ideal in architecture and decoration, — that of incrustation instead of solid piling. These valuable stones of Italy could not be used, generally speaking, in vast blocks, into which the chisel was at liberty to plough as it pleased; when a mass of marble or alabaster was obtained, the æsthetic soul of the Italian craftsman revolted against shutting up all that beauty of veining and texture in the confines of a solid square, of which only the two sides should ever be visible, and often

only one. So he cut his precious block into slices: made slabs and shallow surfaces of it, and these he laid, as an outward adornment to his building, upon a substructure of brick or rubble.

It is easy to perceive, then, the difference of the problem of the sculptors of the North and the South. The plain, solid Northern building was capable of unlimited enrichment by carving; this carving, when deeply cut, with forcible projection, acted as a noble embellishment in which the principal feature was a varied play of light and shade; the stone having little charm of colour or texture in itself, depended for its beauty entirely upon its bold relief, its rounded statuary, and its well shaped chiselled ornament. The shallow surface, already beautiful, both in colour and texture, in the Southern building material, called only for enrichment in low relief: ornament only slightly raised from the level or simply perforating the thin slab of glowing stone on which it was used was the more usual choice of the Italian craftsman.

This statement applies, of course, only to general principles of the art of sculpture; there is some flat bas-relief in the North, and some rounded sculpture in the South: but as a rule the tendencies are as they have just been outlined.

Another difference between sculpture in the North and South is due to the fact that in Italy the work was individual, as a rule, and in France it was the labour of a Guild or company. In Italy it is usually known who

was the author of any striking piece of sculpture, while in France it is the exception when a work is signed, or the names of artisans recorded. In Italy, then, each piece was made more with a view to its own display, than as a part of a building, while in France statuary was regarded as an integral part of the architecture, and rows of figures were used as commonly as rows of columns in Italy. It is tragic to think of the personal skill and brilliancy of all these great French craftsmen being absorbed in one general reputation, while there were undoubtedly among them great art personalities who would have stood equally with the Pisani if they had been recognized.

A good deal of flat carving, especially in the interlace and acanthus of Ravenna, was accomplished by commencing with a series of drilled holes, which were afterwards channelled into each other and formed patterns. When the subsequent finish is not particularly delicate, it is quite easy to detect these symmetrical holes, but the effect, under the circumstances, is not objectionable.

The processs of cutting a bas-relief was generally to outline the whole with an incision, and then cut away the background, leaving the simple elevated flat value, the shape of the proposed design. The modelling was then added by degrees, until the figure looked like half of a rounded object. While it is often unpractical to refer one's readers to examples of work in far and various countries, and advise them instantly to examine them, it is frequently possible to call attention to well-pro-

CARVED CAPITAL FROM RAVENNA

duced plates in certain modern art books which are in nearly every public library. To understand thoroughly the use of the drill in flat sculpture, I wish my readers would refer to Fig. 121 in Mr. Russell Sturgis's "Artist's Way of Working," Vol. II.

In a quaint treatise on Belles Lettres in France nearly two centuries ago, by Carlencas, the writer says: "It is to no great purpose to speak of the Gothick sculptures: for everybody knows that they are the works of a rude art, formed in spite of nature and rules: sad productions of barbrous and dull spirits, which disfigure our old churches." Fie on a Frenchman who could so express himself! We recall the story of how Viollet le Duc made the people of Paris appreciate the wonderful carvings on Notre Dame. All the rage in France was for Greek and Roman remains, and the people persisted in their adoration of the antique, but would not deign to look nearer home, at their great mediæval works of art. So the architect had plaster casts made of the principal figures on the cathedral, and these were treated so as to look like ancient marble statues; he then opened an exhibition, purporting to show new discoveries and excavations among antiques. The exhibition was thronged, and every one was deeply interested, expressing the greatest admiration for the marvellously expressive sculptures. Viollet le Duc then admitted what he had done, and confessing that these treasures were to be found in their native city, advised them to pay more attention to the beauties of Gothic art in Paris.

We will not enter into a discussion of the relative merits of Northern and Southern art; whether the great revival really originated in France or Italy; but this is certain: Nicolo Pisano lived in the latter half of the thirteenth century, while the great sculptures of Notre Dame, Paris, and those of Chartres, were executed half a century earlier.

But prior to either were the Byzantine and Romanesque sculptures in Italy and Southern France. Our attention must first be turned to them. Charles Eliot Norton's definition of this word Romanesque is as satisfactory as any that could be instanced: "It very nearly corresponds to the term of Romance as applied to language. It signifies the derivation of the main elements, both in plan and construction, from the works of the later Roman Empire. But Romanesque architecture" (and this applies equally to sculpture) "was not, as it has been called, a corrupted imitation of the Roman architecture, any more than the Provençal or the Italian language was a corrupted imitation of the Latin. It was a new thing, the slowly matured product of a long period of many influences."

All mediæval carving was subordinate to architecture, therefore every piece of carving was designed with a view to being suitable to appear in some special place. The most striking difference between mediæval and later sculpture is that the latter is designed as a thing apart, an object to be stood anywhere to be admired for its intrinsic merit, instead of being a functional com-

ponent in a general scheme for beautifying a given building.

The use of the interlace in all primitive arts is very interesting. It undoubtedly began in an unconscious imitation of local architecture. For instance, in the British Isles, the building in earliest times was with wattles: practically walls of basket work. William of Malmsbury says that Glastonbury was "a mean structure of wattle work," while of the Monastery of Iona, it is related that in 563, Columba "sent forth his monks to gather twigs to build his hospice." British baskets were famous even so far away as Rome. So the first idea of ornament was to copy the interlacing forms. The same idea was worked out synchronously in metal work, and in illuminated books. Carving in stone, wood, and ivory, show the same influence.

Debased Roman sculptural forms were used in Italy during the fourth and fifth centuries. Then Justinian introduced the Byzantine which was grafted upon the Roman, producing a characteristic and fascinating though barbaric combination. This was the Romanesque, or Romano-Byzantine, in the North of Italy generally being recognized as the Lombard style. The sculptures of this period, from the fifth to the thirteenth century, are blunt and heavy, but full of quaint expression due to the elemental and immature conditions of the art. Many of the old Byzantine carvings are to be seen in Italy.

The Lombards, when invading Northern Italy,

brought with them a mighty smith, Paul the Deacon, who had much skill with the hammer. When these rude Norsemen found themselves among the æsthetic treasures of Byzantium, and saw the fair Italian marbles, and the stately work of Theodoric and Justinian, they were inflamed with zeal for artistic expression, and began to hew and carve rough but spirited forms out of the Pisan and Carrara stones. The animals which they sculptured were, as Ruskin has said, "all alive: hungry and fierce, wild, with a life-like spring." The Byzantine work was quiescent: the designs formal, decent, and monumental. But the Lombards threw into their work their own restless energy, and some of their cruelty and relentlessness. Queen Theodolinda, in her palace at Monza, encouraged the arts; it was because of her appreciative comprehension of such things that St. Gregory sent her the famous Iron Crown, of which a description has been given, on the occasion of the baptism of her son. Under the influence of these subsequently civilized barbarians many of the greatest specimens of carving in North Italy came into being. The most delightful little stumpy saints and sacred emblems may be found on the façade of St. Michele at Pavia, and also at Lucca, and on the Baptistery at Parma. The sculptor who produced these works at Parma was a very interesting craftsman, named Antelami. His Descent from the Cross is one of the most striking pieces of early sculpture before the Pisani. He lived in the twelfth century. The figures are of

Byzantine proportions and forms, but have a good deal of grace and suggestion of movement.

Among the early names known in Italy is that of Magister Orso, of Verona. Another, in the ninth century, was Magister Pacifico, and in the twelfth there came Guglielmus, who carved the charming naïve wild hunting scenes on the portal of St. Zeno of Verona. These reliefs represent Theodoric on horseback, followed by an able company of men and horses which, according to legend, were supplied by the infernal powers. The eyes of these fugitives have much expression, being rendered with a drill, and standing out in the design as little black holes — fierce and effective.

There is a fine round window at St. Zeno at Verona, designed and executed by one Briolottus, which, intended to represent the Wheel of Fortune, is decorated all over with little clinging figures, some falling and some climbing, and has the motto: "I elevate some mortals and depose others: I give good or evil to all: I clothe the naked and strip the clothed: in me if any one trust he will be turned to derision."

Perhaps the most wonderful carvings on the church of St. Zeno at Verona are over the arched entrance to the crypt. These, being chiefly grotesque animal forms, are signed by Adaminus. Among the humourous little conceits is a couple of strutting cocks carrying between them a dead fox slung on a rod. Ruskin has characterized the carvings at Verona, especially those on the porch, as being among the best examples of the true function

of flat decorative carving in stone. He says: "The primary condition is that the mass shall be beautifully rounded, and disposed with due discretion and order; . . . sculpture is essentially the production of a pleasant bossiness or roundness of surface. The pleasantness of that bossy condition to the eye is irrespective of imitation on one side, and of structure on the other." The more one considers this statement, the more he is convinced of its comprehensiveness. If the lights and shadows fall pleasantly, how little one stops to inquire, "What is the subject? Do I consider that horse well proportioned, or do I not? Is that woman in good drawing?" Effectiveness is almost independent of detail, except as that detail affects the law of proportion. There are varying degrees of relief: from flat (where the ornament is hardly more than incised, and the background planed away) to a practically solid round figure cut almost entirely free of its ground.

In Venice, until the revival in the thirteenth century, the Greek Byzantine influence was marked. There is no more complete storehouse of the art of the East adapted to mediæval conditions than the Church of St. Mark's. If space permitted, nothing could be more delightful than to examine in detail these marvellous capitals and archivolts which Ruskin has so lovingly immortalized for English readers. Of all decorative sculpture there is none more satisfying from the ornamental point of view than the Byzantine interlace and vine forms so usual in Venice. The only place where

these may be seen to even greater advantage is Ravenna. The pierced marble screens and capitals, with their restful combinations of interlacing bands and delicate foliate forms, are nowhere surpassed. The use of the acanthus leaf conventionalized in a strictly primitive fashion characterizes most of the Byzantine work in Italy. With these are combined delightful stiff peacocks, and curious bunches of grapes, rosettes, and animal forms of quaint grotesqueness. Such work exemplifies specially what has been said regarding the use of flat thin slabs for sculptural purposes in the South of Europe. Nearly all these carvings are executed in fine marbles and alabasters. The chief works of this period in the round are lions and gryphons supporting columns as at Ancona and Perugia, and many other Italian cities.

In Rome there were several sculptors of the name of Peter. One of them, Peter Amabilis, worked about 1197; and another, Peter le Orfever, went to England and worked on the tomb of Edward the Confessor at Westminster.

In Bologna is an interesting crucifix probably carved in the eighth or ninth century. Christ's figure is upon the cross and that of his mother stands near. The sculptor was Petrus Albericus. On the cross is an inscription in the form of a dialogue: "My son?" "What, Mother?" "Are you God?" "I am." "Why do you hang on the cross?" "That Mankind may not perish."

The Masters of Stone and Wood were among the early Guilds and Corporations of Florence. Charlemagne

patronized this industry and helped to develop it. Of craftsmen in these two branches exclusive of master builders, and recognized artists, there were, in 1299, about a hundred and forty-six members of the Guild.

Italy was backward for a good while in the progress of art, for while great activities were going on in the North, the Doge of Venice in 976 was obliged to import artists from Constantinople to decorate St. Mark's church.

The tombs of this early period in Italy, as elsewhere, are significant and beautiful. Recumbent figures, with their hands devoutly pressed together, are usually seen, lying sometimes on couches and sometimes under architectural canopies.

The first great original Italian sculptor of the Renaissance was Nicola Pisano. He lived through almost the whole of the thirteenth century, being born about 1204, and dying in 1278. What were the early influences of Nicola Pisano, that helped to make him so much more more modern, more truly classic, than any of his age? In the first place, he was born at the moment when interest in ancient art was beginning to awaken; the early thirteenth century. In the Campo Santo of Pisa may be seen two of the most potent factors in his æsthetic education, the Greek sarcophagus on which was carved the Hunting of Meleager, and the Greek urn with Bacchic figures wreathing it in classic symmetry. With his mind tuned to the beautiful, the boy Nicola gazed at the work of genuine pagan Greek artists,

who knew the sinuousness of the human form and the joy of living with no thought of the morrow. These joyous pagan elements, grafted on solemn religious surroundings and influences, combined to produce his peculiar genius. Basing his early endeavours on these specimens of genuine classical Greek art, there resulted his wonderful pulpits at Pisa and Siena, and his matchlessly graceful little Madonnas denote the Hellenistic sentiment for beauty. His work was a marked departure from the Byzantine and Romanesque work which constituted Italian sculpture up to that period. An examination of his designs and methods proves his immense originality. By profession he was an architect. Of his pulpit in Siena Charles Eliot Norton speaks with much appreciation. Alluding to the lions used as bases to its columns, he says: "These are the first realistic representations of living animals which the mediæval revival of art has produced; and in vivacity and energy of rendering, and in the thoroughly artistic treatment of leonine spirit and form, they have never been surpassed." It is usually claimed that one may learn much of the rise of Gothic sculpture by studying the models in the South Kensington Museum. In a foot-note to such a statement in a book edited by Ruskin, the indignant editor has observed, "You cannot do anything of the kind. Pisan sculpture can only be studied in the original marble: half its virtue is in the chiselling!" Nicola was assisted in the work on his shrine of St. Dominic at Bologna by one Fra Guglielmo Agnelli, a monk of

PULPIT OF NICOLA PISANO, PISA

a very pious turn, who, nevertheless, committed a curious theft, which was never discovered until his own death-bed confession. He absconded with a bone of St. Dominic, which he kept for private devotions all his subsequent life! An old chronicler says, naïvely: "If piety can absolve from theft, Fra Guglielmo is to be praised, though never to be imitated."

Andrea Pisano was Nicola's greatest scholar, though not his son. He took the name of his master after the mediæval custom. His work was largely in bronze, and the earlier gates of the Baptistery in Florence are by him. We have already alluded to the later gates by Ghiberti, when speaking of bronze. Andrea had the honour to teach the celebrated Orcagna, — more painter than sculptor, — whose most noted work in this line was the Tabernacle at Or San Michele. Among the loveliest of the figures sculptured by the Pisani are the angels standing in a group, blowing trumpets, on the pulpit at Pistoja, the work of Giovanni. Among Nicola's pupils were his son Giovanni, Donatello, Arnolfo di Cambio, and Lorenzo Maitani, who executed the delightful sculptures on the façade of the Cathedral of Orvieto, — perhaps the most interesting set of bas-reliefs in detail of the Early Renaissance, although in general symmetrical "bossiness" of effect, so much approved by Ruskin, they are very uneven. In this respect they come rather under the head of realistic than of decorative art.

Lorenzo Maitani was a genuine leader of his guild of craftsmen, and superintended the large body of architects

who worked at Orvieto, stone masons, mosaicists, bronze founders, painters, and minor workmen. He lived until 1330, and practically devoted his life to Orvieto. It is uncertain whether any of the Pisani were employed in any capacity, although for a time it was popularly supposed that the four piers on the façade were their work. An iconographic description of these sculptures would occupy too much time here, but one or two features of special interest should be noted: the little portrait relief of the master Maitani himself occurs on the fourth pier, among the Elect in heaven, wearing his workman's cap and carrying his architect's square. Only his head and shoulders can be seen at the extreme left of the second tier of sculptures. In accordance with an early tradition, that Virgil was in some wise a prophet, and that he had foretold the coming of Christ, he is here introduced, on the second pier, near the base, crowned with laurel. The incident of the cutting off of the servant's ear, by Peter, is positively entertaining. Peter is sawing away industriously at the offending member; a fisherman ought to understand a more deft use of the knife! In the scenes of the Creation, depicted on the first pier, Maitani has proved himself a real nature lover in the tender way he has demonstrated the joy of the birds at finding the use of their wings.

The earliest sculptures in France were very rude, — it was rather a process than an art to decorate a building with carvings as the Gauls did! But the latent race talent was there; as soon as the Romanesque and

Byzantine influences were felt, a definite school of sculpture was formed in France; almost at once they seized on the best elements of the craft and abandoned the worthless, and the great note of a national art was struck in the figures at Chartres, Paris, Rheims, and other cathedrals of the Ile de France.

Prior to this flowering of art in Northern France, the churches of the South of France developed a charming Romanesque of their own, a little different from that in Italy. A monk named Tutilon, of the monastery of St. Gall, was among the most famous sculptors of the Romanesque period. Another name is that of Hughes, Abbot of Montier-en-Der. At the end of the tenth century one Morard, under the patronage of King Robert, built and ornamented the Church of St. Germain des Près, Paris, while Guillaume, an Abbot at Dijon, was at the head of the works of forty monasteries. Guillaume probably had almost as wide an influence upon French art as St. Bernward had on the German, or Nicola Pisano on that of Italy. In Metz were two noted architects, Adelard and Gontran, who superintended the building of fourteen churches, and an early chronicler says that the expense was so great that "the imperial treasury would scarce have sufficed for it."

At Arles are two of the most famous monuments of Romanesque art, the porches of St. Trophime, and of St. Gilles. The latter exhibits almost classical feeling and influence; the former is much blunter and more Byzantine; both are highly interesting for purposes

of study, being elaborately ornamented with figure sculptures and other decorative motives.

Abbot Suger, the art-craftsman par excellence of the Ile de France, was the sculptor in chief of St. Denis from 1137 to 1180. This magnificent façade is harmonious in its treatment, betokening plainly that one brain conceived and carried out the plan. We have not the names of the minor architects and sculptors who were employed, but doubtless they were the scholars and followers of Suger, and rendered work in a similar manner.

There are some names which have been handed down from early times in Normandy: one Otho, another Garnier, and a third, Anquetil, while a crucifix carved by Auquilinus of Moissac was popularly believed to have been created by divine means. If one will compare the statues of St. Trophime of Arles with those at St. Denis, it will be found that the latter are better rounded, those at St. Trophime being coarsely blocked out; although at first glance one would say that there was little to choose between them.

The old font at Amiens is very ancient, older than the church. It is seven feet long, and stands on short square piers: it resembles a stone coffin, and was apparently so made that a grown person might be baptized by immersion, by lying at full length. Angels holding scrolls are carved at its four corners, otherwise it is very plain. There is an ancient Byzantine crucifix at Amiens, on which the figure of Our Lord is fully draped, and on his

head is a royal crown instead of thorns. The figure, too, is erect, as if to invite homage by its outstretched arms, instead of suggesting that the arms had to bear the weight of the body. Indeed, it is a Christ triumphant and regnant though crucified — a very unusual treatment of the subject in the Middle Ages. It was brought from the East, in all probability, by a returning warrior from the Crusades.

The foundation of Chartres was very early: the first Bishop St. Aventin occupied his see as early as 200 A. D. The early Gothic type in figure sculpture is always characterized by a few features in common, though different districts produced varying forms and facial expressions. The figures are always narrow, and much elongated, from a monumental sentiment which governed the design of the period. The influence of the Caryatid may have remained in the consciousness of later artists, leading them to make their figures conform so far as expedient to the proportions of the columns which stood behind them and supported them. In any case, it was considered an indispensable condition that these proportions should be maintained, and has come to be regarded as an architectural necessity. As soon as sculptors began to consider their figures as realistic representations of human beings instead of ornamental motives in their buildings, the art declined, and poor results followed.

The west porch of Chartres dates from the twelfth century. The church was injured by fire in 1194. In

1226 certain restorations were made, and an old chronicle says that at that time it was quite fire-proof, remarking: "It has nothing to fear from any earthly fire from this time to the day of Judgment, and will save from fires eternal the many Christians who by their alms have helped in its rebuilding." The whole edifice was consecrated by St. Louis on Oct. 17, 1260. The King gave the north porch, and several of the windows, and the whole royal family was present at this impressive function.

About the time of William the Conqueror it became customary to carve effigies on tombstones, at first simple figures in low relief lying on flat slabs: this idea being soon elaborated, however, into canopied tombs, which grew year by year more ornate, until Gothic structures enriched with finials and crockets began to be erected in churches to such an extent that the interior of the edifice was quite filled with these dignified little buildings. In many instances it is quite impossible to obtain any view of the sanctuary except looking directly down the central aisle; the whole ambulatory is often one continuous succession of exquisite sepulchral monuments.

Perhaps the most satisfying monument of French Gothic style is the tomb of the elder son of St. Louis at St. Denis. The majesty of the recumbent figure is striking, but the little procession of mourners about the main body of the tomb is absolutely unrivalled in art of this character. The device of little weeping figures

TOMB OF THE SON OF ST. LOUIS, ST. DENIS

surrounding the lower part of a tomb is also carried out in an exquisite way on the tomb of Aymer de Valence in Westminster.

Some interesting saints are carved on the north portal of Amiens, among others, St. Ulpha, a virgin who is chiefly renowned for having lived in a chalk cave near Amiens, where she was greatly annoyed by frogs. Undaunted, she prayed so lustily and industriously, that she finally succeeded in silencing them!

The thirteenth century revival in France was really a new birth; almost more than a Renaissance. It is a question among archæologists if France was not really more original and more brilliant than Italy in this respect. A glance at such figures as the Virgin from the Gilded Portal at Amiens, and another Virgin from the same cathedral, will show the change which came over the spirit of art in that one city during the thirteenth century. The figure on the right door of the western façade is a work of the early part of the century. She is grave and dignified in bearing, her hand extended in favour, while the Child gives the blessing in calm majesty. This figure has the spirit of a goddess receiving homage, and bestowing grace: it is conventional and monumental. The Virgin from the Gilded Portal is of a later generation. Her attention is given to the Child, and her aspect is human and spirited, — almost merry. It may be said to be less religious than the other statue, but it is filled with more modern grace and charm, and glorifies the idea of happy maternity: every angle and

fold of the drapery is full of life and action without being over realistic. There is much in common between this pleasing statue and the Virgins of the Pisani in Italy.

Professor Moore considers the statue of the Virgin on the Portal of the Virgin at the west end of Notre Dame in Paris as about the best example of Gothic figure sculpture in France. He says further that the finest statues in portals of any age are those of the north porch at Paris. The Virgin here is marvellously fine also. It combines the dignity and monumental qualities of the first of the Virgins at Amiens, with the living buoyancy of the Virgin on the Gilded Portal. It is the clear result of a study of nature grafted on Byzantine traditions. It dates from 1250.

While sculpture was practised chiefly by monastic artists, it retained the archaic and traditional elements. When trained carvers from secular life began to take the chisel, the spirit of the world entered in. For a time this was a marked improvement: later the pendulum swung too far, and decadence set in.

A favourite device on carved tympana above portals was the Last Judgment. Michael with the scales, engaged in weighing souls, was the tall central figure, and the two depressed saucers of the scales help considerably in filling the triangular space usually left over a Gothic doorway. At Chartres, there is an example of this subject, in which Mortal Sin, typified by a devil and two toads, are being weighed against the soul of a departed hero. As is customary in such compositions,

a little devil is seen pulling on the side of the scale in which he is most interested!

One of the most cheerful and delightful figures at Chartres is that of the very tall angel holding a sun dial, on the corner of the South tower. A certain optimistic inconsequence is his chief characteristic, as if he really believed that the hours bore more of happiness than of sorrow to the world.

There is no limit to the originality and the symbolic messages of the Gothic grotesques. Two whole books might be written upon this subject alone to do it justice; but a few notable instances of these charming little adornments to the stern structures of the Middle Ages must be noticed here. The little medallions at Amiens deserve some attention. They represent the Virtues and Vices, the Follies, and other ethical qualities. Some of them deal with Scriptural scenes. "Churlishness" is figured by a woman kicking over her cup-bearer. Apropos of her attitude, Ruskin observes that the final forms of French churlishness are to be discovered in the feminine gestures in the can-can. He adds: "See the favourite print shops in Paris." Times have certainly changed little!

One of these Amiens reliefs, signifying "Rebellion," is that of a man snapping his fingers at his bishop! Another known as "Atheism" is variously interpreted. A man is seen stepping out of his shoes at the church porch. Ruskin explains this as meaning that the infidel is shown in contradistinction to the faithful who is sup-

posed to have "his feet shod with the preparation of the Gospel of Peace;" but Abbé Roze thinks it more likely that this figure represents an unfrocked monk abandoning the church.

One of these displays the beasts in Nineveh, and a little squat monkey, developing into a devil, is wittily characterized by Ruskin as reversing the Darwinian theory.

The statues above these little quatrefoils are over seven feet in height, differing slightly, and evidently portrait sculptures inspired by living models, adapted to their more austere use in this situation.

A quiet and inconspicuous example of exquisite refinement in Gothic bas-relief is to be seen in the medallioned "Portail aux Libraires" at the Cathedral in Rouen. This doorway was built in 1278 by Jean Davi, who must have been one of the first sculptors of his time. The medallions are a series of little grotesques, some of them ineffably entertaining, and others expressive of real depth of knowledge and thought. Ruskin has eulogized some of these little figures: one as having in its eye "the expression which is never seen but in the eye of a dog gnawing something in jest, and preparing to start away with it." Again, he detects a wonderful piece of realism and appreciative work in the face of a man who leans with his head on his hand in thought: the wrinkles pushed up under his eye are especially commended.

In the south transept at Amiens is a piece of elabo-

rate sculpture in four compartments, which are the figures of many saints. There is a legend in connection with those figures: when the millers were about to select a patron saint, they agreed to choose the saint on whose head a dove, released for the purpose, should alight; but as the bird elected to settle on the head of a demon, they abandoned their plan! The figures in these carvings are almost free of the ground; they appear to be a collection of separate statuettes, the scenes being laid in three or four planes. It is not restrained bas-relief; but the effect is extremely rich. The sculptures in high relief, but in more conventional proportion than these, which occur on the dividing wall between the choir and the north aisle, are thoroughly satisfactory. They are coloured; they were executed in 1531, and they represent scenes in the life of the Baptist. In the panel where Salomé is portrayed as dancing, a grave little monkey is seen watching her from under the table. The similar screen surrounding the sanctuary at Paris was the work of the chief cathedral architect, Jean Renoy, with whom worked his nephew, Jehan le Bouteiller. These stone carved screens are quite usual in the Ile de France. The finest are at Chartres, where they go straight around the ambulatory, the whole choir being fenced in, as it were, about the apse, by this exquisite work. This screen is more effective, too, for being left in the natural colour of the stone: where these sculptures are painted, as they usually are, they suggest wood carvings, and have

not as much dignity as when the stone is fully recognized.

The Door of St. Marcel has the oldest carving on Notre Dame in Paris. The plate representing the iron work, in Chapter IV., shows the carving on this portal, which is the same that has Biscornette's famous hinges. The central figure of St. Marcel himself presents the saint in the act of reproving a naughty dragon which had had the indiscretion to devour the body of a rich but wicked lady. The dragon is seen issuing from the dismantled tomb of this unfortunate person. The dragon repented his act, when the saint had finished admonishing him, and showed his attachment and gratitude for thus being led in paths of rectitude, by following the saint for four miles, apparently walking much as a seal would walk, beseeching the saint to forgive him. But Marcel was firm, and punished the serpent, saying to him: "Go forth and inhabit the deserts or plunge thyself into the sea;" and, as St. Patrick rid the Celtic land of snakes, so St. Marcel seems to have banished dragons from fair France.

At Chartres there are eighteen hundred statues, and almost as many at Amiens and at Rheims and Paris. One reason for the superiority of French figure sculpture in the thirteenth century, over that existing in other countries, is that the French used models. There has been preserved the sketch book of a mediæval French architect, Vilard de Honcourt, which is filled

CARVINGS AROUND CHOIR AMBULATORY, CHARTRES

with studies from life: and why should we suppose him to be the only one who worked in this way?

Rheims Cathedral is the Mecca of the student of mediæval sculpture. The array of statues on the exterior is amazing, and a walk around the great structure reveals unexpected riches in corbels, gargoyles, and other grotesques, hidden at all heights, each a veritable work of art, repaying the closest study, and inviting the enthusiast to undue extravagance at a shop in the vicinity, which advertises naïvely, that it is an "Artistical Photograph Laboratory."

On the door of St. Germain l'Auxerrois in Paris, there is a portrait statue of St. Geneviève, holding a lighted candle, while "the devil in little" sits on her shoulder, exerting himself to blow it out! It is quite a droll conceit of the thirteenth century.

Of the leaf forms in Gothic sculpture, three styles are enough to generalize about. The early work usually represented springlike leaves, clinging, half-developed, and buds. Later, a more luxuriant foliage was attempted: the leaves and stalks were twisted, and the style was more like that actually seen in nature. Then came an overblown period, when the leaves were positively detached, and the style was lost. The foliage was no longer integral, but was applied.

There is little of the personal element to be exploited in dealing with the sculptors in the Middle Ages. Until the days of the Renaissance individual artists were scarcely recognized; master masons employed "im-

agers" as casually as we would employ brick-layers or plasterers; and no matter how brilliant the work, it was all included in the general term "building."

The first piece of signed sculpture in France is a tympanum in the south transept at Paris, representing the Stoning of Stephen. It is by Jean de Chelles, in 1257. St. Louis of France was a patron of arts, and took much interest in his sculptors. There were two Jean de Montereau, who carved sacred subjects in quite an extraordinary way. Jean de Soignoles, in 1359, was designated as "Macon et Ymageur." One of the chief "imageurs," as they were called, was Jacques Haag, who flourished in the latter half of the fifteenth century, in Amiens. This artist was imprisoned for sweating coin, but in 1481 the king pardoned him. He executed large statues for the city gates, of St. Michael and St. Firmin, in 1464 and 1489. There was a sculptor in Paris in the fourteenth century, one Hennequin de Liege, who made several tombs in black and white marble, among them that of Blanche de France, and the effigy of Queen Philippa at Westminster.

It was customary both in France and England to use colour on Gothic architecture. It is curious to realize that the façade of Notre Dame in Paris was originally a great colour scheme. A literary relic, the "Voyage of an Armenian Bishop," named Martyr, in the year 1490, alludes to the beauty of this cathedral of Paris, as being ablaze with gold and colour.

An old record of the screen of the chapel of St. Andrew

at Westminster mentions that it was "adorned with curious carvings and engravings, and other imagery work of birds, flowers, cherubims, devices, mottoes, and coats of arms of many of the chief nobility painted thereon. All done at the cost of Edmond Kirton, Abbot, who lies buried on the south side of the chapel under a plain gray marble slab." H. Keepe, who wrote of Westminster Abbey in 1683, mentioned the virgin over the Chapter House door as being "all richly enamelled and set forth with blue, some vestigia of all which are still remaining, whereby to judge of the former splendour and beauty thereof." Accounts make frequent mention of painters employed, one being "Peter of Spain," and another William of Westminster, who was called the "king's beloved painter."

King René of Anjou was an amateur of much versatility; he painted and made many illuminations: among other volumes, copies of his own works in prose and verse. Aside from his personal claim to renown in the arts, he founded a school in which artists and sculptors were included. One of the chief sculptors was Jean Poncet, who was followed in the king's favour by his son Pons Poncet. Poor Pons was something of a backslider, being rather dissipated; but King René was fond of him, and gave him work to do when he was reduced to poverty. The monument to his nurse, Tiphanie, at Saumur, was entrusted to Pons Poncet. After the death of Pons, the chief sculptor of the court was Jacques Moreau.

CHAPTER VIII

SCULPTURE IN STONE

(*England and Germany*)

A PROGRESSIVE history of English sculpture in stone could be compiled by going from church to church, and studying the tympana, over the doors, in Romanesque and Norman styles, and in following the works in the spandrils between the arches in early Gothic work. First we find rude sculptures, not unlike those in France. The Saxon work like the two low reliefs now to be seen in Chichester Cathedral show dug-out lines and almost flat modelling; then the Norman, slightly rounded, are full of historic interest and significance, though often lacking in beauty. The two old panels alluded to, now in Chichester, were supposed to have been brought from Selsea Cathedral, having been executed about the twelfth century. There is a good deal of Byzantine feeling in them; one represents the Raising of Lazarus, and the other, Our Lord entering the house of Mary and Martha. The figures are long and stiff, and there is a certain quality in the treatment of draperies not unlike that in the figures at Chartres.

Then follows the very early Gothic, like the delightful

little spandrils in the chapter house at Salisbury, and at Westminster, familiar to all travellers. They are full of life, partly through the unanatomic contortions by means of which they are made to express their emotions. Often one sees elbows bent the wrong way to emphasize the gesture of denunciation, or a foot stepping quite across the instep of its mate in order to suggest speed of motion. Early Gothic work in England is usually bas-relief; one does not find the statue as early as in France. In 1176 William of Sens went over to England, to work on Canterbury Cathedral, and after that French influence was felt in most of the best English work in that century. Before the year 1200 there was little more than ornamented spaces, enriched by carving; after that time, figure sculpture began in earnest, and, in statues and in effigies, became a large part of the craftsmanship of the thirteenth century.

The transition was gradual. First small separate heads began to obtain, as corbels, and were bracketed at the junctures of the arch-mouldings in the arcade and triforium of churches. Then on the capitals little figures began to emerge from the clusters of foliage. In many cases the figures are very inferior to the faces, as if more time and study had been given to expressing emotions than to displaying form. The grotesque became very general. Satire and caricature had no other vehicle in the Middle Ages than the carvings in and out of the buildings, for the cartoon had not yet become possible, and painting offered but a limited

scope to the wit, especially in the North; in Italy this outlet for humour was added to that of the sculptor.

Of the special examples of great figure sculpture in England the façade at Wells is usually considered the most significant. The angel choir at Lincoln, too, has great interest; there is real power in some of the figures, especially the angel with the flaming sword driving Adam and Eve from Eden, and the one holding aloft a small figure, — probably typical of the Creation. At Salisbury, too, there is much splendid figure sculpture; it is cause for regret that the names of so few of the craftsmen have survived.

Wells Cathedral is one of the most interesting spots in which to study English Gothic sculpture. Its beautiful West Front is covered with tier after tier of heroes and saints; it was finished in 1242. This is the year that Cimabue was three years old; Niccola Pisano had lived during its building, Amiens was finished forty-six years later, and Orvieto was begun thirty-six years later. It is literally the earliest specimen of so advanced and complete a museum of sculpture in the West. Many critics have assumed that the statues on the West Front of Wells were executed by foreign workmen; but there are no special characteristics of any known foreign school in these figures. Messrs. Prior and Gardner have recently expressed their opinion that these statues, like most of the thirteenth century work in England, are of native origin. The theory is that two kinds of influence were brought to bear to create English "im-

agers." In the first place, goldsmiths and ivory carvers had been making figures on a small scale: their trade was gradually expanded until it reached the execution of statues for the outside ornament of buildings. The figures carved by such artists are inclined to be squat, these craftsmen having often been hampered by being obliged to accommodate their design to their material, and to treat the human figure to appear in spaces of such shapes as circles, squares, and trefoils. Another class of workers who finally turned their attention to statuary, were the carvers of sepulchral slabs: these slabs had for a long time shown the effigies of the deceased. This theory accounts for both types of figures that are found in English Gothic, — the extremely attenuated, and the blunt squat statues. At Wells it would seem that both classes of workmen were employed, some of the statues being short and some extremely tall. They were executed, evidently, at different periods, the façade being gradually decorated, sometimes in groups of several statues, and sometimes in simple pairs. This theory, too, lends a far greater interest to the west front than the theory that it was all carried out at once, from one intentional design.

St. Nicholas, the patron saint of Baptism, is here represented, holding a child on his arm, and standing in water up to his knees. The water, being treated in a very conventional way, coiling about the lower limbs, is so suggestive of tiers of flat discs, that it has won for this statue the popular name of "the pancake

man," for he certainly looks as if he had taken up his position in the midst of a pile of pancakes, into which he had sunk.

The old statue of St. Hugh at Lincoln is an attractive early Gothic work. In 1743 he was removed from his precarious perch on the top of a stone pinnacle, and was placed more firmly afterwards. In a letter from the Clerk of the Works this process was described. "I must acquaint you that I took down the antient image of St. Hugh, which is about six foot high, and stood upon the summit of a stone pinnacle at the South corner of the West Front . . . and pulled down twenty-two feet of the pinnacle itself, which was ready to tumble into ruins, the shell being but six inches thick, and the ribs so much decayed that it declined visibly. . . . I hope to see the saint fixed upon a firmer basis before the Winter." On the top of a turret opposite St. Hugh is the statue of the Swineherd of Stowe. This personage became famous through contributing a peck of silver pennies toward the building of the cathedral. As is usually the case, the saint and the donor therefore occupy positions of equal exaltation! The swineherd is equipped with a winding horn. A foolish tradition without foundation maintains that this figure does not represent the Swineherd at all, but is a play upon the name of Bishop Bloet, — the horn being intended to suggest "Blow it!" It seems hardly possible to credit the mediæval wit with no keener sense of humour than to perpetrate such a far-fetched pun.

The Lincoln Imp, who sits enthroned at the foot of a cul-de-lampe in the choir, is so familiar to every child, now, through his photographs and casts, that it is hardly necessary to describe him. But many visitors to the cathedral fail to come across the old legend of his origin. It is as follows: "The wind one day brought two imps to view the new Minster at Lincoln. Both imps were greatly impressed with the magnitude and beauty of the structure, and one of them, smitten by a fatal curiosity, slipped inside the building to see what was going on. His temerity, however, cost him dear, for he was so petrified with astonishment, that his heart became as stone within him, and he remained rooted to the spot. The other imp, full of grief at the loss of his brother, flew madly round the Minster, seeking in vain for the lost one. At length, being wearied out, he alighted, quite unwittingly, upon the shoulders of a certain witch, and was also, and in like manner, instantly turned to stone. But the wind still haunts the Minster precincts, waiting their return, now hopelessly desolate, now raging with fury." A verse, also, is interesting in this connection:

"The Bishop we know died long ago,
The wind still waits, nor will he go,
Till he has a chance of beating his foe.
But the devil hopped without a limp,
And at once took shape as the Lincoln Imp.
And there he sits atop of a column,
And grins at the people who gaze so solemn,
Moreover, he mocks at the wind below,
And says: 'You may wait till doomsday, O!'"

The effigies in the Round Church at the Temple in London have created much discussion. They represent Crusaders, two dating from the twelfth century, and seven from the thirteenth. Most of them have their feet crossed, and the British antiquarian mind has exploited and tormented itself for some centuries in order to prove, or to disprove, that this signifies that the warriors were crusaders who had actually fought. There seems now to be rather a concensus of opinion that they do not represent Knights Templars, but "associates of the Temple." As none of them can be certainly identified, this controversy would appear to be of little consequence to the world at large. The effigies are extremely interesting from an artistic point of view, and, in repairing them, in 1840, Mr. Richardson discovered traces of coloured enamels and gilding, which must have rendered them most attractive.

Henry III. of England was a genuine art patron, and even evinced some of the spirit of socialism so dear to the heart of William Morris, for the old records relate that the Master Mason, John of Gloucester, was in the habit of taking wine each day with the King! This shows that Henry recognized the levelling as well as the raising power of the arts. In 1255 the king sent five casks of wine to the mason, in payment for five with which John of Gloucester had accommodated his Majesty at Oxford! This is an intimate and agreeable departure from the despotic and grim reputation of early Kings of England.

In 1321 the greatest mediæval craftsman in England was Alan de Walsingham, who built the great octagon from which Ely derives its chief character among English cathedrals. In a fourteenth century manuscript in the British Museum is a tribute to him, which is thus translated by Dean Stubbs (now Bishop of Truro):

> "A Sacrist good and Prior benign,
> A builder he of genius fine:
> The flower of craftsmen, Alan, Prior,
> Now lying entombed before the choir . . .
> And when, one night, the old tower fell,
> This new one he built, and mark it well."

This octagon was erected to the glory of God and to St. Etheldreda, the Queen Abbess of Ely, known frequently as St. Awdry. Around the base of the octagon, at the crests of the great piers which carry it, Prior Alan had carved the Deeds of the Saint in a series of decorative bosses which deserve close study. The scene of her marriage, her subsequently taking the veil at Coldingham, and the various miracles over which she presided, terminate in the death and "chesting" of the saint. This ancient term is very literal, as the body was placed in a stone coffin above the ground, and therefore the word "burial" would be incorrect.

The tomb of Queen Eleanor in Westminster is of Purbeck marble, treated in the style of Southern sculpture, being cut in thin slabs and enriched with low relief ornamentation. The recumbent effigy is in bronze, and was cast, as has been stated, by Master William

Torel. Master Walter of Durham painted the lower portion. Master Richard Crundale was in charge of the general work.

Master John of St. Albans worked in about 1257, and was designated "sculptor of the king's images." There was at this time a school of sculpture at the Abbey. This Westminster School of Artificers supplied statuettes and other sculptured ornaments to order for various places. One of the craftsmen was Alexander "le imaginator." In the Rolls of the Works at Westminster, there is an entry, "Master John, with a carpenter and assistant at St. Albans, worked on the lectern." This referred to a copy which was ordered of a rarely beautiful lectern at St. Albans' cathedral, which had been made by the "incomparable Walter of Colchester." Labour was cheap! There is record of three shillings being paid to John Benet for three capitals!

Among Westminster labourers was one known as Brother Ralph, the Convert; this individual was a reformed Jew. Among the craftsmen selected to receive wine from the convent with "special grace" is the goldsmith, Master R. de Fremlingham, who was then the Abbey plumber.

There was a master mason in 1326, who worked at Westminster and in various other places on His Majesty's Service. This was William Ramsay, who also superintended the building then in progress at St. Paul's, and was a man of such importance in his art, that the mayor and aldermen ordered that he should "not be

placed on juries or inquests" during the time of his activity. He was also chief mason at the Tower. But in spite of the city fathers it was not possible to keep this worthy person out of court! For he and some of his friends, in 1332, practically kidnapped a youth of fourteen named Robert Huberd, took him forcibly from his appointed guardian, and married him out of hand to William Ramsay's daughter Agnes, the reason for this step being evidently that the boy had money. Upon the complaint of his guardian, Robert was given his choice whether he would remain with his bride or return to his former home. He deliberately chose his new relations, and so, as the marriage was quite legal according to existing laws, everything went pleasantly for Master William! It made no difference, either, in the respect of the community or the king for the master mason; in 1344, he was appointed to superintend the building at Windsor, and was made a member of the Common Council in 1347. Verily, the Old Testament days were not the last in which every man "did that which was right in his own eyes."

Carter gives some curious historical explanations of some very quaint and little-known sculptures in a frieze high up in the Chapel of Edward the Confessor in Westminster. One of them represents the Trial of Queen Emma, and is quite a spirited scene. The little accusing hands raised against the central figure of the queen, are unique in effect in a carving of this character. Queen Emma was accused of so many misdemeanours,

poor lady! She had agreed to marry the enemy of her kingdom, King Canute: she gave no aid to her sons, Edward the Confessor and Alfred, when in exile; and she was also behaving in a very unsuitable manner with Alwin, Bishop of Winchester: she seems to have been versatile in crime, and it is no wonder that she was invited to withdraw from her high estate.

The burial of Henry V. is interestingly described in an old manuscript of nearly contemporary origin: "His body was embalmed and cired and laid on a royal carriage, and an image like to him was laid upon the corpse, open: and with divers banners, and horses, covered with the arms of England and France, St. Edward and St. Edmund . . . and brought with great solemnity to Westminster, and worshipfully buried; and after was laid on his tomb a royal image like to himself, of silver and gilt, which was made at the cost of Queen Katherine . . . he ordained in his life the place of his sepulchre, where he is now buried, and every daye III. masses perpetually to be sungen in a fair chapel over his sepulchre." This exquisite arrangement of a little raised chantry, and the noble tomb itself, was the work of Master Mapilton, who came from Durham in 1416.

Mr. W. R. Lethaby calls attention to the practical and expedient way in which mediæval carvers of effigies utilized their long blocks of stone: "Notice," he says, "how . . . the angels at the head and the beast at the foot were put in just to square out the block, and how all the points of high relief come to one plane so that

a drawing board might be firmly placed on the statue." Only such cutting away as was actually necessary was encouraged; the figure was usually represented as putting the earthly powers beneath his feet, while angels ministered at his head. St. Louis ordered a crown of thorns to be placed on his head when he was dying, and the crown of France placed at his feet. The little niches around the tombs, in which usually stood figures of saints, were called "hovels." It is amusing to learn this to-day, with our long established association of the word with poverty and squalor.

Henry VII. left directions for the design of his tomb. Among other stipulations, it was to be adorned with "ymages" of his patron saints "of copper and gilte." Henry then "calls and cries" to his guardian saints and directs that the tomb shall have "a grate, in manner of a closure, of coper and gilte," which was added by English craftsmen. Inside this grille in the early days was an altar, containing a unique relic, — a leg of St. George.

Sculpture and all other decorative arts reached their ultimatum in England about the time of the construction of Henry VII.'s chapel at Westminster. The foundation stone was laid in 1502, by Henry himself. Of the interesting monuments and carvings contained in it, the most beautiful is the celebrated bronze figure by Torregiano on the tomb of the king and queen, which was designed during their lives. Torregiano was born in 1470, and died in 1522, so he is not quite a mediæval

figure, but in connection with his wonderful work we must consider his career a moment. Vasari says that he had "more pride than true artistic excellence." He was constantly interfering with Michelangelo, with whom he was a student in Florence, and on one memorable occasion they came to blows: and that was the day when "Torregiano struck Michelangelo on the nose with his fist, using such terrible violence and crushing that feature in such a manner that the proper form could never be restored to it, and Michelangelo had his nose flattened by that blow all his life." So Torregiano fled from the Medicean wrath which would have descended upon him. After a short career as a soldier, impatient at not being rapidly promoted, he returned to his old profession of a sculptor. He went to England, where, says Vasari, "he executed many works in marble, bronze, and wood, for the king." The chief of these was the striking tomb of Henry VII. and the queen. Torregiano's agreement was to make it for a thousand pounds: also there is a contract which he signed with Henry VIII., agreeing to construct a similar tomb also for that monarch, to be one quarter part larger than that of Henry VII., but this was not carried out.

St. Anthony appears on a little sculptured medallion on the tomb of Henry VII., with a small pig trotting beside him. This is St. Anthony of Vienna, not of Padua. His legend is as follows. In an old document, Newcourt's Repertorium, it is related that "the monks of St. Anthony with their importunate begging, contrary

to the example of St. Anthony, are so troublesome, as, if men give them nothing, they will presently threaten them with St. Anthony's fire; so that many simple people, out of fear or blind zeal, every year use to bestow on them a fat pig, or porker, which they have ordinarily painted in their pictures of St. Anthony, whereby they may procure their good will and their prayers, and be secure from their menaces."

Torregiano's contract read that he should "make well, surely, cleanly, and workmanlike, curiously, and substantially" the marble tomb with "images, beasts, and other things, of copper, gilte." Another craftsman who exercised his skill in this chapel was Lawrence Imber, image maker, and in 1500 the names of John Hudd, sculptor, and Nicolas Delphyn, occur. Some of the figures and statuettes on the tomb were also made by Drawswerd of York.

On the outer ribs of Henry VII.'s chapel may be detected certain little symmetrically disposed bosses, which at first glance one would suppose to be inconspicuous crockets. But in an admirable spirit of humour, the sculptor has here carved a series of griffins, in procession, holding on for dear life, in the attitudes of children sliding down the banisters. They are delightfully animated and amusing.

The well-known figures of the Vices which stand around the quadrangle at Magdalen College, Oxford, are interpreted by an old Latin manuscript in the college. The statues should properly be known as the Virtues

and Vices, for some of them represent such moral qualities as Vigilance, Sobriety, and Affection. It is indeed a shock to learn from this presumably authoritative source, that the entertaining figure of a patient nondescript animal, upon whose back a small reptile

GROTESQUE FROM OXFORD, POPULARLY KNOWN AS THE BACKBITER"

clings, is *not* intended to typify "back biting," but is intended for a "hippopotamus, or river-horse, carrying his young one upon his shoulders; this is the emblem of a good tutor, or fellow of the college, who is set to watch over the youth." But a large number of the statues are devoted to the Vices, which generally explain themselves.

No more spirited semi-secular carvings are to be seen in England than the delightful row of the "Beverly Minstrels." They stand on brackets round a column in St. Mary's Church, Beverly, and are exhibited as singing and playing on musical instruments. They were probably carved and presented by the Minstrels or Waits, themselves, or at any rate at their expense, for an angel near by holds a tablet inscribed: "This pyllor

THE "BEVERLY MINSTRELS"

made the meynstyrls." These "waits" were quite an institution, being a kind of police to go about day and night and inspect the precincts, announcing break of day by blowing a horn, and calling the workmen together by a similar signal. The figures are of about the period of Henry VII.

The general excellence of sculpture in Germany is said to be lower than that of France; in fact, such mediæval German sculpture as is specially fine is based upon French work. Still, while this statement holds

good in a general way, there are marked departures, and examples of extremely interesting and often original sculpture in Germany, although until the work of such great masters as Albrecht Dürer, Adam Kraft, and Viet Stoss, the wood carver, who are much later, there is not as prolific a display of the sculptor's genius as in France.

The figures on the Choir screen at Hildesheim are rather heavy, and decidedly Romanesque; but the whole effect is most delightful. Some of the heads have almost Gothic beauty. The screen is of about 1186, and the figures are made of stucco; but it is exceptionally good stucco, very different in character from the later work, which Browning has designated as "stucco twiddlings everywhere."

Much good German sculpture may be seen in Nüremberg. The Schöner Brunnen, the beautiful fountain, is a delight, in spite of the fact that one is not looking at the original, which was relegated to the museum for safe keeping long ago. The carving, too, on the Frauenkirche, and St. Sebald's, and on St. Lorenz, is as fine as anything one will find in Germany. Another exception stands out in the memory. Nothing is more exquisite than the Bride's Door, at St. Sebald's, in Nüremberg; the figures of the Wise and Foolish Virgins who guard the entrance could hardly be surpassed in the realm of realistic sculpture, retaining at the same time a just proportion of monumental feeling. They are bewitching and dainty, full of grace not often seen in German work of that period.

The figures on the outside of Bamberg Cathedral are also as fine as anything in France, and there are some striking examples at Naumburg, but often the figures in German work lack lightness and length, which are such charming elements in the French Gothic sculptures.

At Strasburg the Cathedral is generally conceded to be the most interesting and ornate of the thirteenth century work in Germany, although, as has been indicated, French influence is largely responsible. A very small deposit of this influence escaped into the Netherlands, and St. Gudule in Brussels shows some good carving in Gothic style.

A gruesome statue on St. Sebald's in Nüremberg represents the puritanical idea of "the world," by exhibiting a good-looking young woman, whose back is that of a corpse; the shroud is open, and the half decomposed body is displayed, with snakes and toads depredating upon it.

Among the early Renaissance artists in Nüremberg, was Hans Decker, who was named in the Burgher Lists of 1449. He may have had influence upon the youth of Adam Kraft, whose great pyx in St. Lorenz's is known to every one who has visited Germany.

Adam Kraft was born in Nüremberg in the early fifteenth century and his work is a curious link between Gothic and Renaissance styles. His chief characteristic is expressed by P. J. Rée, who says: "The essence of his art is best described as a naïve realism sustained by tender and warm religious zeal." Adam Kraft carved

the Stations of the Cross, to occupy, on the road to St. John's Cemetery in Nüremberg, the same relative distances apart as those of the actual scenes between Pilate's house and Golgotha. Easter Sepulchres were often enriched with very beautiful sculptures by the first masters. Adam Kraft carved the noble scene of the Burial of Christ in St. John's churchyard in Nüremberg.

It is curious that the same mind and hand which conceived and carved these short stumpy figures, should have made the marvel of slim grace, the Tabernacle, or Pyx, at St. Lorenz. A figure of the artist kneeling, together with two workmen, one old and one young, supports the beautiful shrine, which rears itself in graduated stages to the tall Gothic roof, where it follows the curve of a rib, and turns over at the top exactly like some beautiful clinging plant departing from its support, and flowering into an exquisitely proportioned spiral. It suggests a gigantic crozier. Before it was known what a slender metal core followed this wonderful growth, on the inside, there was a tradition that Kraft had discovered "a wonderful method for softening and moulding hard stones." The charming relief by Kraft on the Weighing Office exhibits quite another side of his genius; here three men are engaged in weighing a bale of goods in a pair of scales: a charming arrangement of proportion naturally grows out of this theme, which may have been a survival in the mind of the artist of his memory of the numerous tympana with the Judgment

ST. LORENZ CHURCH, NUREMBERG, SHOWING ADAM KRAFT'S PYX, AND THE HANGING MEDALLION BY VEIT STOSS

of Michael weighing souls. The design is most attractive, and the decorative feeling is enhanced by two

RELIEF BY ADAM KRAFT

coats of arms and a little Gothic tracery running across the top. When Adam Kraft died in 1508, the art of sculpture practically ceased in Nüremberg.

CHAPTER IX

CARVING IN WOOD AND IVORY

If the Germans were somewhat less original than the French, English, and Italians in their stone carving, they made up for this deficiency by a very remarkable skill in wood carving. Being later, in period, this art was usually characterized by more naturalism than that of sculpture in stone.

In Germany the art of sculpture in wood is said to have been in full favour as early as the thirteenth century. There are two excellent wooden monuments, one at Laach erected to Count Palatine Henry III., who died in 1095, and another to Count Henry III. of Sayne, in 1246. The carving shows signs of the transition to Gothic forms. Large wooden crucifixes were carved in Germany in the eleventh and twelfth centuries. Byzantine feeling is usual in these figures, which are frequently larger than life.

Mediæval wood carving developed chiefly along the line of altar pieces and of grotesque adornments of choir stalls. Among the most interesting of these are the "miserere" seats, of which we shall speak at more length.

The general methods of wood carving resemble some-

what those of stone carving; that is to say, flat relief, round relief, and entirely disengaged figures occur in both, while in both the drill is used as a starting point

CARVED BOX-WOOD PYX, 14TH CENTURY

in many forms of design. As with the other arts, this of carving in wood emanated from the monastery.

The monk Tutilo, of St. Gall, was very gifted. The old chronicle tells us that " he was eloquent, with a fine voice, skilful in carving, and a painter. A musician, like his companions, but in all kinds of wind and stringed

instruments . . . he excelled everybody. In building and in his other arts he was eminent." Tutilo was a monk of the ninth century.

A celebrated wood carving of the thirteenth century, on a large scale, is the door of the Church of St. Sabina in Rome. It is divided into many small panels, finely carved. These little reliefs are crowded with figures, very spirited in action.

Painted and carved shields and hatchments were popular. The Italian artists made these with great refinement. Sometimes stucco was employed instead of genuine carving, and occasionally the work was embossed on leather. They were painted in heraldic colours, and gold, and nothing could be more decorative. Even Giotto produced certain works of this description, as well as a carved crucifix.

Altar pieces were first carved and painted, the backgrounds being gilded. By degrees stucco for the figures came in to replace the wood: after that, they were gradually modelled in lower relief, until finally they became painted pictures with slightly raised portions, and the average Florentine altar piece resulted. With the advance in painting, and the ability to portray the round, the necessity for carved details diminished.

Orders from a great distance were sometimes sent to the Florentine Masters of Wood, — the choir stalls in Cambridge, in King's College Chapel, were executed by them, in spite of the fact that Torregiano alluded to them as " beasts of English."

An early French wood carver was Girard d'Orleans, who, in 1379, carved for Charles V. "ung tableau de boys de quatre pieces." Ruskin considers the choir stalls in Amiens the best worth seeing in France; he speaks of the "carpenter's work" with admiration, for no nails are used, nor is the strength of glue relied upon; every bit is true "joinery," mortised, and held by the skill and conscientiousness of its construction. Of later work in wood it is a magnificent example. The master joiner, Arnold Boulin, undertook the construction of the stalls in 1508. He engaged Anton Avernier, an image maker, to carve the statuettes and figures which occur in the course of the work. Another joiner, Alexander Hust, is reported as working as well, and in 1511, both he and Boulin travelled to Rouen, to study the stalls in the cathedral there. Two Franciscan monks, "expert and renowned in working in wood," came from Abbeville to give judgment and approval, their expenses being paid for this purpose.

Jean Troupin, a "simple workman at the wages of three sous a day," was added to the staff of workers in 1516, and in one of the stalls he has carved his own portrait, with the inscription, "Jan Troupin, God take care of thee." In 1522 the entire work was completed, and was satisfactorily terminated on St. John's day, representing the entire labour of six or eight men for about fourteen years.

In the fifteenth century Germany led all countries in the art of wood carving. Painting was nearly always

allied to this art in ecclesiastical use. The sculptured forms were gilded and painted, and, in some cases, might almost be taken for figures in faience, so high was the polish. Small altars, with carved reredos and frontals, were very popular, both for church and closet. The style employed was pictorial, figures and scenes being treated with great naturalism. One of the famous makers of such altar pieces was Lucas Möser, in the earlier part of the fifteenth century. A little later came Hans Schülein, and then followed Freidrich Herlin, who carved the fine altar in Rothenburg. Jorg Syrlin of Ulm and his son of the same name cover the latter half of the century.

Bavaria was the chief province in which sculptors in wood flourished. The figures are rather stumpy sometimes, and the draperies rather heavy and lacking in delicate grace, but the works are far more numerous than those of other districts, and vary enormously in merit.

Then followed the great carvers of the early Renaissance — Adam Kraft, and Veit Stoss, contemporaries of Peter Vischer and Albrecht Dürer, whom we must consider for a little, although they hardly can be called mediæval workmen.

Veit Stoss was born in the early fifteenth century, in Nüremberg. He went to Cracow when he was about thirty years of age, and spent some years working hard. He returned to his native city, however, in 1496, and worked there for the rest of his life. A delicate specimen of his craft is the Rosenkranztafel, a wood carving in

the Germanic Museum, which exhibits medallions in relief, representing the Communion of Saints, with a wreath of roses encircling it. Around the border of this oblong composition there are small square reliefs, and a Last Judgment which is full of grim humour occupies the lower part of the space. Among the amusing incidents represented, is that of a redeemed soul, quite naked, climbing up a vine to reach heaven, in which God the Father is in the act of "receiving" Adam and Eve, shaking hands most sociably! The friends of this aspiring climber are "boosting" him from below; the most deliciously realistic proof that Stoss had no use for the theory of a winged hereafter!

Veit Stoss was a very versatile craftsman. Besides his wonderful wood carvings, for which he is chiefly noted, he was a bridge-builder, a stone-mason, a bronze caster, painter of altars, and engraver on copper! Like all such variously talented persons, he suffered somewhat from restlessness and preferred work to peace, — but his compensation lay in the varied joys of creative works. His naturalism was marked in all that he did: a naïve old chronicler remarks that he made some life-sized coloured figures of Adam and Eve, "so fashioned that one was *afraid* that they were alive!" Veit Stoss was an interesting individual. He was not especially moral in all his ways, narrowly escaping being executed for forgery; but his brilliancy as a technician was unsurpassed. He lived until 1533, when he died in Nüremberg as a very old man. One of his most delightful

achievements is the great medallion with an open background, which hangs in the centre of the Church of St. Lorenz. It shows two large and graceful figures, — Mary and the Angel Gabriel, the subject being the Annunciation. A wreath of angels and flowers surrounds the whole, with small medallions representing the seven joys of the Virgin. It is a masterly work, and was presented by Anton Tucher in 1518. Veit Stoss was the leading figure among wood carvers of the Renaissance, although Albrecht Dürer combined this with his many accomplishments, as well.

Some of the carvings in wood in the chapel of Henry VII. at Westminster, are adapted from drawings by Albrecht Dürer, and are probably the work of Germans. Two of these, Derrick van Grove and Giles van Castel, were working at St. George's, Windsor, about the same time.

The very finest example of Nüremberg carving, however, is the famous wooden Madonna, which has been ascribed to Peter Vischer the Younger, both by Herr von Bezold and by Cecil Headlam. It seems very reasonable after a study of the other works of this remarkable son of Peter Vischer, for there is no other carver of the period, in all Nüremberg, who could have executed such a flawlessly lovely figure.

One of the noted wood carvers in Spain in the Renaissance, was Alonso Cano. He was a native of Granada and was born in 1601. His father was a carver of "retablos," and brought the boy up to follow his profession.

Cano was also a painter of considerable merit, but as a sculptor in wood he was particularly successful. His first conspicuous work was a new high altar for the church of Lebrija, which came to him on account of the death of his father, who was commencing the work in 1630, when his life was suddenly cut off. Alonso made this altar so beautifully, that he was paid two hundred and fifty ducats more than he asked! Columns and cornices are arranged so as to frame four excellent statues. These carvings have been esteemed so highly that artists came to study them all the way from Flanders. The altar is coloured, like most of the Spanish retablos. Cano was a pugnacious character, always getting into scrapes, using his stiletto, and being obliged to shift his residence on short notice. It is remarkable that his erratic life did not interfere with his work, which seems to have gone calmly on in spite of domestic and civic difficulties. Among his works at various places, where his destiny took him, was a tabernacle for the Cathedral of Malaga. He had worked for some time at the designs for this tabernacle, when it was whispered to him that the Bishop of Malaga intended to get a bargain, and meant to beat him down in his charges. So, packing up his plans and drawings, and getting on his mule, Cano observed, "These drawings are either to be given away for nothing, or else they are to bring two thousand ducats." The news of his departure caused alarm among those in authority, and he was urged to bring back the designs, and receive his own price.

Cano carved a life-size crucifix for Queen Mariana, which she presented to the Convent of Monserrati at Madrid. Alonso Cano entered the Church and became canon of the Cathedral of Granada. But all his talents had no effect upon his final prosperity: he died in extreme want in 1667, the Cathedral records showing that he was the recipient of charity, five hundred reals being voted to "the canon Cano, being sick and very poor, and without means to pay the doctor." Another record mentions the purchase of "poultry and sweetmeats" also for him.

Cano made one piece of sculpture in marble, a guardian angel for the Convent at Granada, but this no longer exists. Some of his architectural drawings are preserved in the Louvre. Ford says that his St. Francesco in Toledo is "a masterpiece of cadaverous ecstatic sentiment."

The grotesques which played so large a part in church art are bewailed by St. Bernard: "What is the use," he asks, "of those absurd monstrosities displayed in the cloisters before the reading monks? . . . Why are unclean monkeys and savage lions, and monstrous centaurs and semi-men, and spotted tigers, and fighting soldiers, and pipe-playing hunters, represented?" Then St. Bernard inadvertently admits the charm of all these grotesques, by adding: "The variety of form is everywhere so great, that marbles are more pleasant reading than manuscripts, and the whole day is spent in looking at them instead of in meditating on the law of God."

St. Bernard concludes with the universal argument: "Oh, God, if one is not ashamed of these puerilities, why does not one at least spare the expense?" A hundred years later, the clergy were censured by the Prior de Coinsi for allowing "wild cats and lions" to stand equal with the saints.

The real test of a fine grotesque — a genuine Gothic

MISERERE STALL; AN ARTISAN AT WORK

monster — is, that he shall, in spite of his monstrosity, retain a certain anatomical consistency: it must be conceivable that the animal organism could have developed along these lines. In the thirteenth century, this is always possible; but in much later times, and in the Renaissance, the grotesques simply became comic and degraded, and lacking in humour: in a later chapter this idea will be developed further.

The art of the choir stalls and miserere seats was a natural ebullition of the humourous instinct, which had so little opportunity for exploiting itself in monastic seclusion. The joke was hidden away, under the seat,

out of sight of visitors, or laymen: inconspicuous, but furtively entertaining. There was no self-consciousness in its elaboration, it was often executed for pure love of fun and whittling; and for that very reason embodies all the most attractive qualities of its art. There was no covert intention to produce a genre history of contemporary life and manners, as has sometimes been claimed. These things were accidentally introduced in the work, but the carvers had no idea of ministering to this or any other educational theory. Like all light-hearted expression of personality, the miserere stalls have proved of inestimable worth to the world of art, as a record of human skill and genial mirth.

A good many of the vices of the times were portrayed on the miserere seats. The "backbiter" is frequently seen, in most unlovely form, and two persons gossiping with an "unseen witness" in the shape of an avenging friend, looking on and waiting for his opportunity to strike! Gluttons and misers are always accompanied by familiar devils, who prod and goad them into such sin as shall make them their prey at the last. Among favourite subjects on miserere seats is the "alewife." No wonder ale drinking proved so large a factor in the jokes of the fraternity, for the rate at which it was consumed, in this age when it took the place of both tea and coffee, was enormous. The inmates of St. Cross Hospital, Winchester, who were alluded to as "impotents," received daily one gallon of beer each, with two extra quarts on holidays! If this were the allowance of

MISERERE STALL, ELY; NOAH AND THE DOVE

pensioners, what must have been the proportion among the well-to-do? In 1558 there is a record of a dishonest beer seller who gave only a pint for a penny drink, instead of the customary quart! The subject of the alewife who had cheated her customers, being dragged to hell by demons, is often treated by the carvers with much relish, in the sacred precincts of the church choir!

MISERERE STALL; THE FATE OF THE ALE-WIFE

At Ludlow there is a relief which shows the unlucky lady carried on the back of a demon, hanging with her head upside down, while a smiling "recording imp" is making notes in a scroll concerning her! In one of the Chester Mysteries, the Ale Wife is made to confess her own shortcomings:

> "Some time I was a taverner,
> A gentle gossip and a tapster,
> Of wine and ale a trusty brewer,
> Which woe hath me wrought.

> Of cans I kept no true measure,
> My cups I sold at my pleasure,
> Deceiving many a creature,
> Though my ale were nought!"

There is a curious miserere in Holderness representing a nun between two hares: she is looking out with a smile, and winking!

At Ripon the stalls show Jonah being thrown to the whale, and the same Jonah being subsequently relinquished by the sea monster. The whale is represented by a large bland smiling head, with gaping jaws, occurring in the midst of the water, and Jonah takes the usual "header" familiar in mediæval art, wherever this episode is rendered.

A popular treatment of the stall was the foliate mask; stems issuing from the mouth of the mask and developing into leaves and vines. This is an entirely foolish and unlovely design: in most cases it is quite lacking in real humour, and makes one think more of the senseless Roman grotesques and those of the Renaissance. The mediæval quaintness is missing.

At Beverly a woman is represented beating a man, while a dog is helping himself out of the soup cauldron. The miserere at Beverly date from about 1520.

Animals as musicians, too, were often introduced, — pigs playing on viols, or pipes, an ass performing on the harp, and similar eccentricities may be found in numerous places, while Reynard the Fox in all his forms abounds.

The choir stalls at Lincoln exhibit beautiful carving

and design: they date from the fourteenth century, and were given by the treasurer, John de Welburne. There are many delightful miserere seats, many of the selections in this case being from the legend of Reynard the Fox.

Abbot Islip of Westminster was a great personality, influencing his times and the place where his genius expressed itself. He was very constant and thorough in repairing and restoring at the Abbey, and under his direction much fine painting and illuminating were accomplished. The special periods of artistic activity in most of the cathedrals may be traced to the personal influence of some cultured ecclesiastic.

A very beautiful specimen of English carving is the curious oak chest at York Cathedral, on which St. George fighting the dragon is well rendered. However, the termination of the story differs from that usually associated with this legend, for the lady leads off the subdued dragon in a leash, and the very abject crawl of the creature is depicted with much humour.

Mediæval ivory carving practically commenced with the fourth century; in speaking of the tools employed, it is safe to say that they corresponded to those used by sculptors in wood. It is generally believed by authorities that there was some method by which ivory could be taken from the whole rounded surface of the tusk, and then, by soaking, or other treatment, rendered sufficiently malleable to be bent out into a large flat sheet: for some of the large mediæval ivories are much wider

than the diameter of any known possible tusk. There are recipes in the early treatises which tell how to soften the ivory that it may be more easily sculptured: in the Mappae Clavicula, in the twelfth century, directions are given for preparing a bath in which to steep ivory, in order to make it soft. In the Sloane MS. occurs another recipe for the same purpose.

Ahab's "ivory house which he made" must have been either covered with a very thin veneer, or else the ivory was used as inlay, which was often the case, in connection with ebony. Ezekiel alludes to this combination. Ivory and gold were used by the Greeks in their famous Chryselephantine statues, in which cases thin plates of ivory formed the face, hands, and exposed parts, the rest being overlaid with gold. This art originated with the brothers Dipœnus and Scillis, about 570 B. C., in Crete.

"In sculpturing ivory," says Theophilus, "first form a tablet of the magnitude you may wish, and superposing chalk, portray with a lead the figures according to your pleasure, and with a pointed instrument mark the lines that they may appear: then carve the grounds as deeply as you wish with different instruments, and sculp the figures or other things you please, according to your invention and skill." He tells how to make a knife handle with open work carvings, through which a gold ground is visible: and extremely handsome would such a knife be when completed, according to Theophilus' directions. He also tells how to redden

ivory. "There is likewise an herb called 'rubrica,' the root of which is long, slender, and of a red colour; this being dug up is dried in the sun and is pounded in a mortar with the pestle, and so being scraped into a pot, and a lye poured over it, is then cooked. In this, when it has well boiled, the bone of the elephant or fish or stag, being placed, is made red." Mediæval chessmen were made in ivory: very likely the need for a red stain was felt chiefly for such pieces.

The celebrated Consular Diptychs date from the fourth century onwards. It was the custom for Consuls to present to senators and other officials these little folding ivory tablets, and the adornment of Diptychs was one of the chief functions of the ivory worker. Some of them were quite ambitious in size; in the British Museum is a Diptych measuring over sixteen inches by five: the tusk from which this was made must have been almost unique in size. It is a Byzantine work, and has the figure of an angel carved upon it.

Gregory the Great sent a gift of ivory to Theodolinda, Queen of the Lombards, in 600. This is decorated with three figures, and is a most interesting diptych.

The earliest diptych, however, is of the year 406, known as the Diptych of Probus, on which may be seen a bas-relief portrait of Emperor Honorius. On the Diptych of Philoxenus is a Greek verse signifying, "I, Philoxenus, being Consul, offer this present to the wise Senate." An interesting diptych, sixteen inches by six, is inscribed, "Flavius Strategius Apius, illus-

trious man, count of the most fervent servants, and consul in ordinary." This consul was invested in 539; the work was made in Rome, but it is the property of the Cathedral of Orviedo in Spain, where it is regarded as a priceless treasure.

Claudian, in the fourth century, alludes to diptychs, speaking of "huge tusks cut with steel into tablets and gleaming with gold, engraved with the illustrious name of the Consul, circulated among great and small, and the great wonder of the Indies, the elephant, wanders about in tuskless shame!" In Magaster, a city which according to Marco Polo, was governed by "four old men," they sold "vast quantities of elephants' teeth."

Rabanus, a follower of Alcuin, born in 776, was the author of an interesting encyclopædia, rejoicing in the comprehensive title, "On the Universe." This work is in twenty-two books, which are supposed to cover all possible subjects upon which a reader might be curious. . . . The seventeenth book is on "the dust and soil of the earth," under which uninviting head he includes all kinds of stones, common and precious; salt, flint, sand, lime, jet, asbestos, and the Persian moonstone, of whose brightness he claims that it "waxes and wanes with the moon." Later he devotes some space to pearls, crystals, and glass. Metals follow, and marbles and *ivory*, though why the latter should be classed among minerals we shall never understand.

The Roman diptychs were often used as after-dinner gifts to distinguished guests. They were presented on

IVORY TABERNACLE, RAVENNA

various occasions. In the Epistles of Symmachus, the writer says: "To my Lord and Prince I sent a diptych edged with gold. I presented other friends also with these ivory note books."

While elephant's tusks provided ivory for the southern races, the more northern peoples used the walrus and narwhale tusks. In Germany this was often the case. The fabulous unicorn's horn, which is so often alluded to in early literature, was undoubtedly from the narwhale, although its possessor always supposed that he had secured the more remarkable horn which was said to decorate the unicorn.

Triptychs followed diptychs in natural sequence. These, in the Middle Ages, were usually of a devotional character, although sometimes secular subjects occur. Letters were sometimes written on ivory tablets, which were supposed to be again used in forwarding a reply. St. Augustine apologizes for writing on parchment, explaining, "My ivory tablets I sent with letters to your uncle; if you have any of my tablets, please send them in case of similar emergencies." Tablets fitted with wax linings were used also in schools, as children now use slates.

Ivory diptychs were fashionable gifts and keepsakes in the later Roman imperial days. They took the place which had been occupied in earlier days by illuminated books, such as were produced by Lala of Cyzicus, of whom mention will be made in connection with book illuminators.

THE NATIVITY; IVORY CARVING

After the triptychs came sets of five leaves, hinged together; sometimes these were arranged in groups of

four around a central plaque. Often they were intended to be used as book covers. Occasionally the five leaves were made up of classical ivories which had been altered in such a way that they now had Christian significance. The beautiful diptych in the Bargello, representing Adam in the Earthly Paradise, may easily have been originally intended for Orpheus, especially since Eve is absent! The treatment is rather classical, and was probably adapted to its later name. Some diptychs which were used afterwards for ecclesiastical purposes, show signs of having had the Consular inscription erased, and the wax removed, while Christian sentiments were written or incised within the book itself. Parts of the service were also occasionally transcribed on diptychs. In Milan the Rites contain these passages: "The lesson ended, a scholar, vested in a surplice, takes the ivory tablets from the altar or ambo, and ascends the pulpit;" and in another place a similar allusion occurs: "When the Deacon chants the Alleluia, the key bearer for the week hands the ivory tablets to him at the exit of the choir."

Anastatius, in his Life of Pope Agatho, tells of a form of posthumous excommunication which was sometimes practised: "They took away from the diptychs . . . wherever it could be done, the names and figures of these patriarchs, Cyrus, Sergius, Paul, Pyrrhus, and Peter, through whom error had been brought among the orthodox."

Among ivory carvings in Carlovingian times may be

cited a casket with ornamental colonettes sent by Eginhard to his son. In 823, Louis le Debonaire owned a statuette, a diptych, and a coffer, while in 845 the Archbishop of Rheims placed an order for ivory book covers, for the works of St. Jerome, a Lectionary, and other works.

The largest and best known ivory carving of the middle ages is the throne of Maximian, Archbishop of Ravenna. This entire chair, with an arched back and arms, is composed of ivory in intricately carved plaques. It is considerably over three feet in height, and is a superb example of the best art of the sixth century. Photographs and reproductions of it may be seen in most works dealing with this subject. Scenes from Scripture are set all over it, divided by charming meanders of deeply cut vine motives. Some authorities consider the figures inferior to the other decorations: of course in any delineation of the human form, the archaic element is more keenly felt than when it appears in foliate forms or conventional patterns. Diptychs being often taken in considerable numbers and set into large works of ivory, has led some authorities to suppose that the Ravenna throne was made of such a collection; but this is contradicted by Passeri in 1759, who alludes to the panels in the following terms: "They might readily be taken by the ignorant for diptychs. . . . This they are not, for they cannot be taken from the consular diptychs which had their own ornamentation, referring to the consultate and the insignia, differing from the sculpture destined for other purposes. Hence they are obviously

mistaken who count certain tablets as diptychs which have no ascription to any consul, but represent the Muses, Bacchantes, or Gods. These seem to me to have been book covers." Probably the selected form of an upright tablet for the majority of ivory carvings is based on economic principles: the best use of the most surface from any square block of material is to cut it in thin slices. In their architecture the southern mediæval builders so treated stone, building a substructure of brick and laying a slab or veneer of the more costly material on its surface: with ivory this same principle was followed, and the shape of the tusk, being long and narrow, naturally determined the form of the resulting tablets.

The Throne of Ivan III. in Moscow and that of St. Peter in Rome are also magnificent monuments of this art. Ivory caskets were the chief manifestation of taste in that medium, during the period of transition from the eighth century until the revival of Byzantine skill in the tenth century. This form of sculpture was at its best at a time when stone sculpture was on the decline.

There is a fascinating book cover in Ravenna which is a good example of sixth century work of various kinds. In the centre, Christ is seen, enthroned under a kind of palmetto canopy; above him, on a long panel, are two flying angels displaying a cross set in a wreath; at either end stand little squat figures, with balls and crosses in their hands. Scenes from the miracles of Our Lord occupy the two side panels, which are sub-

divided so that there are four scenes in all; they are so quaint as to be really grotesque, but have a certain blunt charm which is enhanced by the creamy lumpiness of the material in which they are rendered. The healing of the blind, raising of the dead, and the command to the man by the pool to take up his bed and walk, are accurately represented; the bed in this instance is a form of couch with a wooden frame and mattress, the carrying of which would necessitate an unusual amount of strength on the part of even a strong, well man. One of the most naïve of these panels of the miracles is the curing of "one possessed:" the boy is tied with cords by the wrists and ankles, while, at the touch of the Master, a little demon is seen issuing from the top of the head of the sufferer, waving its arms proudly to celebrate its freedom! Underneath is a small scene of the three Children in the Fiery Furnace; they look as if they were presenting a vaudeville turn, being spirited in action, and very dramatic. Below all, is a masterly panel of Jonah and the whale, — an old favourite, frequently appearing in mediæval art. The whale, positively smiling and sportive, eagerly awaits his prey at the right. Jonah is making a graceful dive from the ship, apparently with an effort to land in the very jaws of the whale. At the opposite side, the whale, having coughed up his victim, looks disappointed, while Jonah, in an attitude of lassitude suggestive of sea-sickness, reclines on a bank; an angel, with one finger lifted as if in reproach, is hurrying towards him.

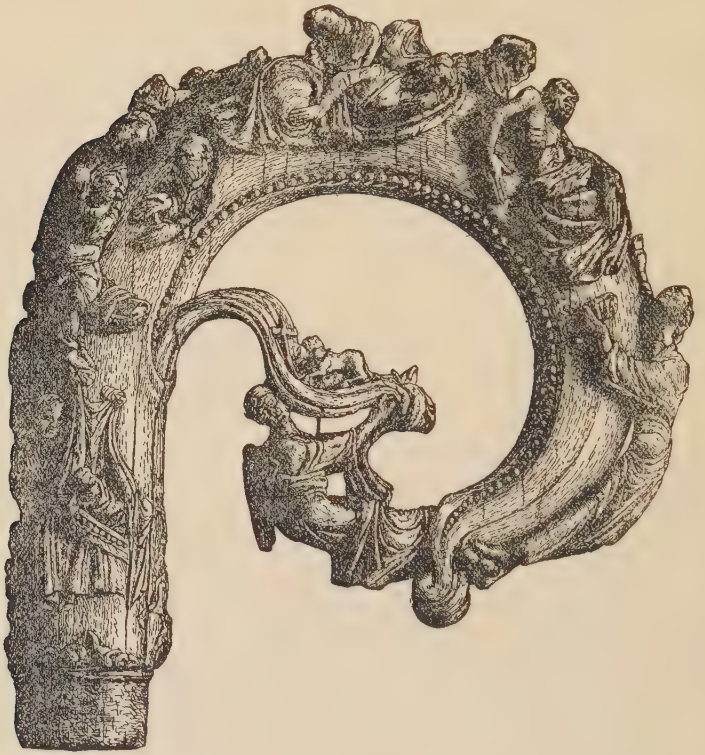
An ingenuous ivory carving of the ninth century in Carlovingian style is a book cover on which is depicted the finding of St. Gall, by tame bears in the wilderness. These bears, walking decorously on their hind legs, are figured as carrying bread to the hungry saint: one holds a long French loaf of a familiar pattern, and the other a breakfast roll!

Bernward of Hildesheim had a branch for ivory carving in his celebrated academy, to which allusion has been made.

Ivory drinking horns were among the most beautiful and ornate examples of secular ivories. They were called Oliphants, because the tusks of elephants were chiefly used in their manufacture. In 1515 the Earl of Ormonde leaves in his will "a little white horn of ivory garnished at both ends with gold," and in St. Paul's in the thirteenth century, there is mention of "a great horn of ivory engraved with beasts and birds." The Horn of Ulphas at York is an example of the great drinking horns from which the Saxons and Danes, in early days, drank in token of transfer of lands; as we are told by an old chronicler, "When he gave the horn that was to convey his estate, he filled it with wine, and went on his knees before the altar . . . so that he drank it off in testimony that thereby he gave them his lands." This horn was given by Ulphas to the Cathedral with certain lands, a little before the Conquest, and placed by him on the altar.

Interesting ivories are often the pastoral staves

carried by bishops. That of Otho Bishop of Hildesheim in 1260 is inscribed in the various parts: "Persuade



PASTORAL STAFF; IVORY, GERMAN, 12TH CENTURY

by the lower part; rule by the middle; and correct by the point." These were apparently the symbolic functions of the crozier. The French Gothic ivory croziers are perhaps more beautiful than others, the little figures

standing in the carved volutes being especially delicate and graceful.

Before a mediæval bishop could perform mass he was enveloped in a wrapper, and his hair was combed "respectfully and lightly" (no tugging!) by the deacon. This being a part of the regular ceremonial, special carved combs of ivory, known as Liturgical Combs, were used. Many of them remain in collections, and they are often ornamented in the most delightful way, with little processions and Scriptural scenes in bas-relief. In the Regalia of England, there was mentioned among things destroyed in 1649, "One old comb of horn, worth nothing." According to Davenport, this may have been the comb used in smoothing the king's hair on the occasion of a Coronation.

The rich pulpit at Aix la Chapelle is covered with plates of gold set with stones and ivory carvings; these are very fine. It was given to the cathedral by the Emperor Henry II. The inscription may be thus translated: "Artfully brightened in gold and precious stones, this pulpit is here dedicated by King Henry with reverence, desirous of celestial glory: richly it is decorated with his own treasures, for you, most Holy Virgin, in order that you may obtain the highest gain as a future reward for him." The sentiment is not entirely disinterested; but are not motives generally mixed? St. Bernard preached a Crusade from this pulpit in 1146. The ivory carvings are very ancient, and remarkably fine, representing figures from the Greek myths.

Ivory handles were usual for the fly-fan, or flabellum, used at the altar, to keep flies and other insects away from the Elements. One entry in an inventory in 1429 might be confusing if one did not know of this custom: the article is mentioned as "one muscifugium de pecock" meaning a fly-fan of peacock's feathers!

Small round ivory boxes elaborately sculptured were used both for Reserving the Host and for containing relics. In the inventory of the Church of St. Mary Hill, London, was mentioned, in the fifteenth century, "a lytill yvory cofyr with relyks." At Durham, in 1383, there is an account of an "ivory casket conteining a vestment of St. John the Baptist," and in the fourteenth century, in the same collection, was "a tooth of St. Gendulphus, good for the Falling Sickness, in a small ivory pyx."

Ivory mirror backs lent themselves well to decorations of a more secular nature: these are often carved with the Siege of the Castle of Love, and with scenes from the old Romances; tournaments were very popular, with ladies in balconies above pelting the heroes with roses as large as themselves, and the tutor Aristotle "playing horse" was a great favourite. Little elopements on horseback were very much liked, too, as subjects; sometimes rows of heroes on steeds appear, standing under windows, from which, in a most wholesale way, whole nunneries or boarding-schools seem to be descending to fly with them. One of these mirrors shows Huon of Bordeaux playing at chess with the king's daughter:

another represents a castle, which occupies the upper centre of the circle, and under the window is a drawbridge, across which passes a procession of mounted

IVORY MIRROR CASE; EARLY 14TH CENTURY

knights. One of these has paused, and, standing balancing himself in a most precarious way on the pommels of his saddle, is assisting a lady to descend from a window. Below are seen others, or perhaps the same lovers, in a later stage of the game, escaping in a boat. At the

windows are the heads of other ladies awaiting their turn to be carried off.

An ivory chest of simple square shape, once the prop-

IVORY MIRROR CASE, 1340

erty of the Rev. Mr. Bowle, is given in detail by Carter in the Ancient Specimens, and is as interesting an example of allegorical romance as can be imagined. Observe the attitude of the knight who has laid his sword across a chasm in order to use it as a bridge. He is pro-

ceeding on all fours, with unbent knees, right up the sharp edge of the blade!

Among small box shrines which soon developed in Christian times from the Consular diptychs is one, in the inventory of Roger de Mortimer, "a lyttle long box of yvory, with an ymage of Our ladye therein closed."

The differences in expression between French, English, and German ivory carvings is quite interesting. The French faces and figures have always a piquancy of action: the nose is a little retroussée and the eyelids long. The German shows more solidity of person, less transitoriness and lightness about the figure, and the nose is blunter. The English carvings are often spirited, so as to be almost grotesque in their strenuousness, and the tool-mark is visible, giving ruggedness and interest.

Nothing could be more exquisite than the Gothic shrines in ivory made in the thirteenth century, but descriptions, unless accompanied by illustrations, could give little idea of their individual charm, for the subject is usually the same: the Virgin and child, in the central portion of the triptych, while scenes from the Passion occupy the spaces on either side, in the wings.

Statuettes in the round were rare in early Christian times: one of the Good Shepherd in the Basilewski collection is almost unique, but pyxes in cylindrical form were made, the sculpture on them being in relief. In small ivory statuettes it was necessary to follow the natural curve of the tusk in carving the figure, hence

the usual twisted, and sometimes almost contorted forms often seen in these specimens. Later, this peculiarity was copied in stone, unconsciously, simply because the style had become customary. One of the most charming little groups of figures in ivory is in the Louvre, the Coronation of the Virgin. The two central figures are flanked by delightful jocular little angels, who have that characteristic close-lipped, cat-like smile, which is a regular feature in all French sculpture of the Gothic type. In a little triptych of the fourteenth century, now in London, there is the rather unusual scene of Joseph, sitting opposite the Virgin, and holding the Infant in his arms.

Among the few names of mediæval ivory carvers known, are Henry de Grès, in 1391, Héliot, 1390, and Henry de Senlis, in 1484. Héliot is recorded as having produced for Philip the Bold "two large ivory tablets with images, one of which is the . . . life of Monsieur St. John Baptist." This polite description occurs in the Accounts of Amiot Arnaut, in 1392.

A curious freak of the Gothic period was the making of ivory statuettes of the Virgin, which opened down the centre (like the Iron Maiden of Nüremberg), and disclosed within a series of Scriptural scenes sculptured on the back and on both sides. These images were called Vierges Ouvrantes, and were decidedly more curious than beautiful.

In the British Museum is a specimen of northern work, a basket cut out from the bone of a whale: it is Norse

in workmanship, and there is a Runic inscription about the border, which has been thus translated:

> "The whale's bones from the fishes' flood
> I lifted on Fergen Hill:
> He was dashed to death in his gambols
> And aground he swam in the shallows."

CHESSMAN FROM LEWIS

Fergen Hill refers to an eminence near Durham.

Some very ancient chessmen are preserved in the British Museum, in particular a set called the Lewis Chessmen. They were discovered in the last century, being laid bare by the pick axe of a labourer. These chessmen have strange staring eyes; when the workman saw them, he took them for gnomes who had come up out of the bowels of the earth, to annoy him, and he rushed off in terror to report what proved to be an important archæological discovery.

One of the chessmen of Charlemagne is to be seen in Paris: he rides an elephant, and is attended by a cortège, all in one piece. Sometimes these men are very elaborate ivory carvings in themselves.

As Mr. Maskell points out that bishops did not wear mitres, according to high authority, until after the year 1000, it is unlikely that any of the ancient chessmen in which the Bishop appears in a mitre should be of earlier date than the eleventh century. There is one fine Anglo-Saxon set of draughts in which the white pieces are of walrus ivory, and the black pieces, of genuine jet.

Paxes, which were passed about in church for the Kiss of Peace, were sometimes made of ivory.

There are few remains of early Spanish ivory sculpture. Among them is a casket curiously and intricately ornamented and decorated, with the following inscription: "In the Name of God, The Blessing of God, the complete felicity, the happiness, the fulfilment of the hope of good works, and the adjourning of the fatal period of death, be with Hagib Seifo. . . . This box was made by his orders under the inspection of his slave Nomayr, in the year 395." Ivory caskets in Spain were often used to contain perfumes, or to serve as jewel boxes. It was customary, also, to use them to convey presents of relics to churches. Ivory was largely used in Spain for inlay in fine furniture.

King Don Sancho ordered a shrine, in 1033, to contain the relics of St. Millan. The ivory plaques which are set about this shrine are interesting specimens of

Spanish art under Oriental domination. Under one little figure is inscribed Apparitio Scholastico, and Remirus Rex under another, while a figure of a sculptor carving a shield, with a workman standing by him, is labelled " Magistro and Ridolpho his son."

Few individual ivory carvers are known by name. A French artist, Jean Labraellier, worked in ivory for Charles V. of France; and in Germany it must have been quite a fashionable pursuit in high life; the Elector of Saxony, August the Pious, who died in 1586, was an ivory worker, and there are two snuff-boxes shown as the work of Peter the Great. The Elector of Brandenburgh and Maximilian of Bavaria both carved ivory for their own recreation. In the seventeenth and eighteenth centuries there were many well-known sculptors who turned their attention to ivory; but our researches hardly carry us so far.

For a moment, however, I must touch on the subject of billiard balls. It may interest our readers to know that the size of the little black dot on a ball indicates its quality. The nerve which runs through a tusk, is visible at this point, and a ball made from the ivory near the end of the tusk, where the nerve has tapered off to its smallest proportions, is the best ball. The finest balls of all are made from short stubby tusks, which are known as " ball teeth." The ivory in these is closer in grain, and they are much more expensive. Very large tusks are more liable to have coarse grained bony spaces near the centre.

CHAPTER X

INLAY AND MOSAIC

THERE are three kinds of inlay, one where the pattern is incised, and a plastic filling pressed in, and allowed to harden, on the principle of a niello; another, where both the piece to be set in and the background are cut out separately; and a third, where a number of small bits are fitted together as in a mosaic. The pavement in Siena is an example of the first process. The second process is often accomplished with a fine saw, like what is popularly known as a jig saw, cutting the same pattern in light and dark wood, one layer over another; the dark can then be set into the light, and the light in the dark without more than one cutting for both. The mosaic of small pieces can be seen in any of the Southern churches, and, indeed, now in nearly every country. It was the chief wall treatment of the middle ages.

About the year 764, Maestro Giudetto ornamented the delightful Church of St. Michele at Lucca. This work, or at least the best of it, is a procession of various little partly heraldic and partly grotesque animals, inlaid with white marble on a ground of green serpentine. They are full of the best expression of mediæval art.

MARBLE INLAY FROM LUCCA

The Lion of Florence, the Hare of Pisa, the Stork of Perugia, the Dragon of Pistoja, are all to be seen in these simple mosaics, if one chooses to consider them as such, hardly more than white silhouettes, and yet full of life and vigour. The effect is that of a vast piece of lace, — the real cut work of the period. Absurd little trees, as space fillers, are set in the green and white marble. Every reader will remember how Ruskin was enthusiastic over these little creatures, and no one can fail to feel their charm.

The pavements at the Florentine Baptistery and at San Miniato are interesting examples of inlay in black and white marble. They are early works, and are the natural forerunners of the marvellous pavement at Siena, which is the most remarkable of its kind in the world.

The pavement masters worked in varying methods. The first of these was the joining together of large flat pieces of marble, cut in the shapes of the general design, and then outlining on them an actual black drawing by means of deeply cut channels, filled with hard black cement. The channels were first cut superficially and then emphasized and deepened by the use of a drill, in a series of holes.

Later workers used black marbles for the backgrounds, red for the ground, and white for the figures, sometimes adding touches of yellow inlay for decorations, jewels, and so forth. Some of the workers even used gray marble to represent shadows, but this was very difficult,

DETAIL OF PAVEMENT, BAPTISTERY, FLORENCE

and those who attempted less chiaroscuro were more successful from a decorator's point of view.

This work covered centuries. The earliest date of the ornamental work in Siena is 1369. From 1413 to 1423 Domenico del Coro, a famous worker in glass and in intarsia, was superintendent of the works. The beauty and spirit of much of the earlier inlay have been impaired by restoration, but the whole effect is unique, and on so vast a scale that one hesitates to criticize it just as one hesitates to criticize the windows at Gouda.

One compartment of the floor is in genuine mosaic, dating from 1373. The designer is unknown, but the feeling is very Sienese; Romulus and Remus are seen in their customary relation to the domesticated wolf, while the symbolical animals of various Italian cities are arranged in a series of circles around this centrepiece. One of the most striking designs is that of Absalom, hanging by his hair. It is in sharp black and white, and the foliage of the trees is remarkably decorative, rendered with interesting minutiæ. This is attributed to Pietro del Minella, and was begun in 1447.

A very interesting composition is that of the Parable of the Mote and the Beam. This is an early work, about 1375; it shows two gentlemen in the costume of the period, arguing in courtly style, one apparently declaiming to the other how much better it would be for him if it were not for the mote in his eye, while from the eye of the speaker himself extends, at an impossible angle, a huge wedge of wood, longer than his head, from

which he appears to suffer no inconvenience, and which seems to have defied the laws of gravitation!

The renowned Matteo da Siena worked on the pavement; he designed the scene of the Massacre of the Innocents — it seems to have been always his favourite subject. He was apparently of a morbid turn.

In 1505 Pinturicchio was paid for a work on the floor: "To master Bernardino Pinturicchio, ptr., for his labour in making a cartoon for the design of Fortune, which is now being made in the Cathedral, on this 13th day of March, 12 Lires for our said Master Alberto." The mosaic is in red, black, and white, while other coloured marbles are introduced in the ornamental parts of the design, several of which have been renewed. Fortune herself has been restored, also, as have most of the lower figures in the composition. Her precariousness is well indicated by her action in resting one foot on a ball, and the other on an unstable little boat which floats, with broken mast, by the shore. She holds a sail above her head, so that she is liable to be swayed by varying winds. The three upper figures are in a better state of preservation than the others.

There was also in France some interest in mosaic during the eleventh century. At St. Remi in Rheims was a celebrated pavement in which enamels were used as well as marbles. Among the designs which appeared on this pavement, which must have positively rivalled Siena in its glory, was a group of the Seven Arts, as well as numerous Biblical scenes. It is said that certain

DETAIL OF PAVEMENT, SIENA; "FORTUNE," BY PINTURICCHIO

bits of valuable stone, like jasper, were exhibited in marble settings, like "precious stones in a ring." There were other French pavements, of the eleventh century, which were similar in their construction, in which terra cotta was employed for the reds.

"Pietra Dura" was a mosaic laid upon either a thick wood or a marble foundation. Lapis lazuli, malachite, and jasper were used largely, as well as bloodstones, onyx, and Rosso Antico. In Florentine Pietra Dura work, the inlay of two hard and equally cut materials reached its climax.

Arnolfo del Cambio, who built the Cathedral of Sta. Maria Fiore in Florence, being its architect from 1294 till 1310, was the first in that city to use coloured slabs and panels of marble in a sort of flat mosaic on a vast scale on the outside of buildings. His example has been extensively followed throughout Italy. The art of Pietra Dura mosaic began under Cosimo I. who imported it, if one may use such an expression, from Lombardy. It was used chiefly, like Gobelins Tapestry, to make very costly presents, otherwise unprocurable, for grandees and crowned heads. For a long time the work was a Royal monopoly. There are several interesting examples in the Pitti Palace, in this case in the form of tables. Flowers, fruits, shells, and even figures and landscapes have been represented in this manner.

Six masters of the art of Pietra Dura came from Milan in 1580, to instruct the Florentines: and a portrait of Cosimo I. was the first important result of their labours.

It was executed by Maestro Francesco Ferucci. The Medicean Mausoleum in Florence exhibits magnificent specimens of this craft.

In the time of Ferdinand I. the art was carried by Florentines to India, where it was used in decorating some of the palaces. Under Ferdinand II. Pietra Dura reached its climax, there being in Florence at this time a most noted Frenchman, Luigi Siriès, who settled in Florence in 1722. He refined the art by ceasing to use the stone as a pigment in producing pictures, and employing it for the more legitimate purposes of decoration. Some of the large tables in the Pitti are his work. Flowers and shells on a porphyry ground were especially characteristic of Siriès. There was a famous inlayer of tables, long before this time, named Antonio Leopardi, who lived from 1450 to 1525.

The inlay of wood has been called marquetry and intarsia, and was used principally on furniture and choir stalls. Labarte gives the origin of this art in Italy to the twelfth century. The Guild of Carpenters in Florence had a branch of Intarsiatura workers, which included all forms of inlay in wood. It is really more correct to speak of intarsia when we allude to early Italian work, the word being derived from "interserere," the Latin for "insert;" while marquetry originates in France, much later, from "marqueter," to mark. Italian wood inlay began in Siena, where one Manuello is reported to have worked in the Cathedral in 1259. Intarsia was also made in Orvieto at this time. Vasari did not hold

the art in high estimation, saying that it was practised by "those persons who possessed more patience than skill in design," and I confess to a furtive concurrence in Vasari's opinion. He criticizes it a little illogically, however, when he goes on to say that the "work soon becomes dark, and is always in danger of perishing from the worms and by fire," for in these respects it is no more perishable than any great painting on canvas or panel. Vasari always is a little extreme, as we know.

The earliest Italian workers took a solid block of wood, chiselled out a sunken design, and then filled in the depression with other woods. The only enemy to such work was dampness, which might loosen the glue, or cause the small thin bits to swell or warp. The glue was applied always when the surfaces were perfectly clean, and the whole was pressed, being screwed down on heated metal plates, that all might dry evenly.

In 1478 there were thirty-four workshops of intarsia makers in Florence. The personal history of several of the Italian workers in inlay is still available, and, as it makes a craft seem much more vital when the names of the craftsmen are known to us, it will be interesting to glance at a few names of prominent artists in this branch of work. Bernardo Agnolo and his family are among them; and Domenico and Giovanni Tasso were wood-carvers who worked with Michelangelo. Among the "Novelli," there is a quaint tale called "The Fat Ebony Carver," which is interesting to read in this connection.

Benedetto da Maiano, one of the "most solemn" workers in intarsia in Florence, became disgusted with his art after one trying experience, and ever after turned his attention to other carving. Vasari's version of the affair is as follows. Benedetto had been making two beautiful chests, all inlaid most elaborately, and carried them to the Court of Hungary, to exhibit the workmanship. "When he had made obeisance to the king, and had been kindly received, he brought forward his cases and had them unpacked . . . but it was then he discovered that the humidity of the sea voyage had softened the glue to such an extent that when the waxed cloths in which the coffers had been wrapped were opened, almost all the pieces were found sticking to them, and so fell to the ground! Whether Benedetto stood amazed and confounded at such an event, in the presence of so many nobles, let every one judge for himself."

A famous family of wood inlayers were the del Tasso, who came from S. Gervasio. One of the brothers, Giambattista, was a wag, and is said to have wasted much time in amusement and standing about criticizing the methods of others. He was a friend of Cellini, and all his cronies pronounce him to have been a good fellow. On one occasion he had a good dose of the spirit of criticism, himself, from a visiting abbot, who stopped to see the Medicean tomb, where Tasso happened to be working. Tasso was requested to show the stranger about, which he did. The abbot began by depreciating the beauty of the building, remarking that Michelangelo's

figures in the Sacristy did not interest him, and on his way up the stairs, he chanced to look out of a window and caught sight of Brunelleschi's dome. When the dull ecclesiastic began to say that this dome did not merit the admiration which it raised, the exasperated Tasso, who was loyal to his friends, could stand no more. Il Lasca recounts what happened: "Pulling the abbot backward with force, he made him tumble down the staircase, and he took good care to fall himself on top of him, and calling out that the frater had been taken mad, he bound his arms and legs with cords . . . and then taking him, hanging over his shoulders, he carried him to a room near, stretched him on the ground, and left him there in the dark, taking away the key." We will hope that if Tasso himself was too prone to criticism, he may have learned a lesson from this didactic monastic, and was more tolerant in the future.

Of the work of Canozio, a worker of about the same time, Matteo Colaccio in 1486, writes, "In visiting these intarsiad figures I was so much taken with the exquisiteness of the work that I could not withold myself from praising the author to heaven!" He refers thus ecstatically to the Stalls at St. Antonio at Padua, which were inlaid by Canozio, assisted by other masters. For his work in the Church of St. Domenico in Reggio, the contract called for some curious observances: he was bound by this to buy material for fifty lire, to work one third of the whole undertaking for fifty lire, to earn another fifty lire for each succeeding third, and then

to give "forty-eight planks to the Lady," whatever that may mean! Among the instruments mentioned are: "Two screw profiles: one outliner: four one-handed little planes: rods for making cornices: two large squares and one grafonetto: three chisels, one glued and one all of iron: a pair of big pincers: two little axes: and a bench to put the tarsia on." Pyrography has its birth in intarsia, where singeing was sometimes employed as a shading in realistic designs.

In the Study of the Palace at Urbino, there is mention of "arm chairs encircling a table all mosaicked with tarsia, and carved by Maestro Giacomo of Florence," a worker of considerable repute. One of the first to adopt the use of ivory, pearl, and silver for inlay was Andrea Massari of Siena. In this same way inlay of tortoise-shell and brass was made, — the two layers were sawed out together, and then counterchanged so as to give the pattern in each material upon the other. Cabinets are often treated in this way. Ivory and sandal-wood or ebony, too, have been sometimes thus combined. In Spain cabinets were often made of a sort of mosaic of ebony and silver; in 1574 a Prohibition was issued against using silver in this way, since it was becoming scarce.

In De Luna's "Diologos Familiares," a Spanish work of 1669, the following conversation is given: "How much has your worship paid for this cabinet? It is worth more than forty ducats. What wood is it made of? The red is of mahogany, from Habaña, and

the black is made of ebony, and the white of ivory. You will find the workmanship excellent." This proves that inlaid cabinets were usual in Spain.

Ebony being expensive, it was sometimes simulated with stain. An old fifteenth century recipe says: "Take boxwood and lay in oil with sulphur for a night, then let it stew for an hour, and it will become as black as coal." An old Italian book enjoins the polishing of this imitation ebony as follows: "Is the wood to be polished with burnt pumice stone? Rub the work carefully with canvas and this powder, and then wash the piece with Dutch lime water so that it may be more beautifully polished . . . then the rind of a pomegranate must be steeped, and the wood smeared over with it, and set to dry, but in the shade."

Inlay was often imitated; the elaborate marquetry cabinets in Sta. Maria della Grazia in Milan which are proudly displayed are in reality, according to Mr. Russell Sturgis, cleverly painted to simulate the real inlaid wood. Mr. Hamilton Jackson says that these, being by Luini, are intended to be known as paintings, but to imitate intarsia.

Intarsia was made also among the monasteries. The Olivetans practised this art extensively, and, much as some monasteries had scriptoria for the production of books, so others had carpenter's shops and studios where, according to Michele Caffi, they showed "great talent for working in wood, succeeding to the heirship of the art of tarsia in coloured woods, which they got from

Tuscany." One of the more important of the Olivetan Monasteries was St. Michele in Bosco, where the noted worker in tarsia, Fra Raffaello da Brescia, made some magnificent choir stalls. In 1521 these were finished, but they were largely destroyed by the mob in the suppression of the convents in the eighteenth century. In 1812 eighteen of the stalls were saved, bought by the Marquis Malvezzi, and placed in St. Petronio. He tried also to save the canopies, but these had been sold for firewood at about twopence each!

The stalls of St. Domenico at Bologna are by Fra Damiano of Bergamo; it is said of him that his woods were coloured so marvellously that the art of tarsia was by him raised to the rank of that of painting! He was a Dominican monk in Bologna most of his life. When Charles V. visited the choir of St. Domenico, and saw these stalls, he would not believe that the work was accomplished by inlay, and actually cut a piece out with his sword by way of investigation.

Castiglione the Courtier expresses himself with much admiration of the work of Fra Damiano, "rather divine than human." Of the technical perfection of the workmanship he adds: "Though these works are executed with inlaid pieces, the eye cannot even by the greatest exertion detect the joints. . . . I think, indeed, I am certain, that it will be called the eighth wonder of the world." (Count Castiglione did not perhaps realize what a wonderful world he lived in!) But at any rate there is no objection to subscribing to his eulogy:

"All that I could say would be little enough of his rare and singular virtue, and on the goodness of his religious and holy life." Another frate who wrote about that time alluded to Fra Damiano as "putting together woods with so much art that they appear as pictures painted with the brush."

In Germany there was some interesting intarsia made by the Elfen Brothers, of St. Michael's in Hildesheim, who produced beautiful chancel furniture. Hans Stengel of Nüremberg, too, was renowned in this art.

After the Renaissance marquetry ran riot in France, but that is out of the province of our present study.

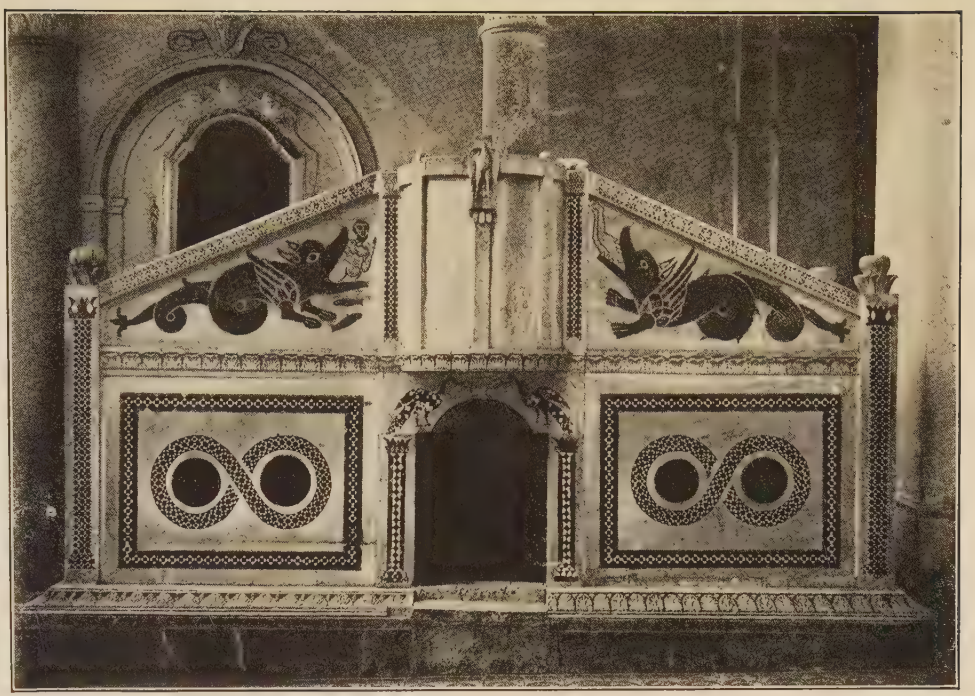
The art of mosaic making has changed very little during the centuries. Nearly all the technical methods now used were known to the ancients. In fact, this art is rather an elemental one, and any departure from old established rules is liable to lead the worker into a new craft; his art becomes that of the inlayer or the enameller when he attempts to use larger pieces in cloissons, or to fuse bits together by any process.

Mosaic is a natural outgrowth from other inlaying; when an elaborate design had to be set up, quite too complicated to be treated in tortuously-cut large pieces, the craftsman naturally decided to render the whole work with small pieces, which demanded less accurate shaping of each piece. Originally, undoubtedly, each bit of glass or stone was laid in the soft plaster of wall or floor; but now a more labour saving method has obtained; it is amusing to watch the modern rest-cure.

Instead of an artist working in square bits of glass to carry out his design, throwing his interest and personality into the work, a labourer sits leisurely before a large cartoon, on which he glues pieces of mosaic the prescribed colour and size, mechanically fitting them over the design until it is completely covered. Then this sheet of paper, with the mosaic glued to it, is slapped on to the plaster wall, having the stones next to the plaster, so that, until it is dry, all that can be seen is the sheet of paper apparently fixed on the wall. But lo! the grand transformation! The paper is washed off, leaving in place the finished product — a very accurate imitation of the picture on which the artist laboured, all in place in the wall, every stone evenly set as if it had been polished — entirely missing the charm of the irregular faceted effect of an old mosaic — again mechanical facility kills the spirit of an art.

Much early mosaic, known as Cosmati Work, is inlaid into marble, in geometric designs; twisted columns of this class of work may be seen in profusion in Rome, and the façade of Orvieto is similarly decorated. Our illustration will demonstrate the technical process as well as a description.

The mosaic base of Edward the Confessor's shrine is inscribed to the effect that it was wrought by Peter of Rome. It was a dignified specimen of the best Cosmati. All the gold glass which once played its part in the scheme of decoration has been picked out, and in fact most of the pieces in the pattern are missing.



AMBO AT RAVELLO; SPECIMEN OF COSMATI MOSAIC

The mosaic pavement in Westminster Abbey Presbytery is as fine an example of Roman Cosmati mosaic as one can see north of the Alps. An inscription, almost obliterated, is interpreted by Mr. Lethaby as signifying, that in the year 1268 "Henry III. being King, and Odericus the cementarius, Richard de Ware, Abbot, brought the porphyry and divers jaspers and marbles of Thaso from Rome." In another place a sort of enigma, drawn from an arbitrary combination of animal forms and numbers, marks a chart for determining the end of the world! There is also a beautiful mosaic tomb at Westminster, inlaid with an interlacing pattern in a ground of marble, like the work so usual in Rome, and in Palermo, and other Southern centres of the art.

While the material used in mosaic wall decoration is sometimes a natural product, like marble, porphyry, coral, or alabaster, the picture is composed for the most part of artificially prepared smalts — opaque glass of various colours, made in sheets and then cut up into cubes. An infinite variety in gradations of colour and texture is thus made possible.

The gold grounds which one sees in nearly all mosaics are constructed in an interesting way. Each cube is composed of plain rather coarse glass, of a greenish tinge, upon which is laid gold leaf. Over this leaf is another film of glass, extremely thin, so that the actual metal is isolated between two glasses, and is thus impervious to such qualities in the air as would tarnish it or cause it to deteriorate. To prevent an uninteresting evenness

of surface on which the sun's rays would glint in a trying manner, it was usual to lay the gold cubes in a slightly irregular manner, so that each facet, as it were, should reflect at a different angle, and the texture, especially in the gold grounds, never became monotonous. One does not realize the importance of this custom until one sees a cheap modern mosaic laid absolutely flat, and then it is evident how necessary this broken surface is to good effect. Any one who has tried to analyze the reason for the superiority of old French stained glass over any other, will be surprised, if he goes close to the wall, under one of the marvellous windows of Chartres, for instance, and looks up, to see that the whole fabric is warped and bent at a thousand angles, — it is not only the quality of the ancient glass, nor its colour, that gives this unattainable expression to these windows, but the accidental warping and wear of centuries have laid each bit of glass at a different angle, so that the refraction of the light is quite different from any possible reflection on the smooth surface of a modern window.

The dangers of a clear gold ground were felt more fully by the workers at Ravenna and Rome, than in Venice. Architectural schemes were introduced to break up the surface: clouds and backgrounds, fields of flowers, and trees, and such devices, were used to prevent the monotony of the unbroken glint. But in Venice the decorators were brave; their faith in their material was unbounded, and they not only frankly laid gold in enormous masses on flat wall and cupola, but they even

moulded the edges and archivolts without separate ribs or strips to relieve them; the gold is carried all over the edges, which are rounded into curves to receive the mosaic, so that the effect is that of the entire upper part of the church having been *pressed* into shape out of solid gold. The lights on these rounded edges are incomparably rich.

It is equally important to vary the plain values of the colour, and this was accomplished by means of dilution and contrast in tints instead of by unevenness of surface, although in many of the most satisfactory mosaics, both means have been employed. Plain tints in mosaic can be relieved in a most delightful way by the introduction of little separate cubes of unrelated colour, and the artist who best understands this use of mass and dot is the best maker of mosaic. The actual craft of construction is similar everywhere, but the use of what we may regard as the pigment has possibilities similar to the colours of a painter. The manipulation being of necessity slow, it is more difficult to convey the idea of spontaneity in design than it is in a fresco painting.

To follow briefly the history of mosaic as used in the Dark Ages, the Middle Ages, and the period of the Renaissance, it is interesting to note that by the fourth century mosaic was the principal decoration in ecclesiastical buildings. Contantine employed this art very extensively. Of his period, however, few examples remain. The most notable is the little church of Sta. Constanza, the vaults of which are ornamented in this

way, with a fine running pattern of vines, interspersed with figures on a small scale. The Liber Pontificalis tells how Constantine built the Basilica of St. Agnese at the request of his daughter, and also a baptistery in the same place, where Constance was baptized, by Bishop Sylvester.

Among the most interesting early mosaics is the apse of the Church of St. Pudentiana in Rome. Barbet de Jouy, who has written extensively on this mosaic, considers it to be an eighth century achievement. But a later archæologist, M. Rossi, believes it to have been made in the fourth century, in which theory he is upheld by M. Vitet. The design is that of a company of saints gathered about the Throne on which God the Father sits to pass judgment. In certain restorations and alterations made in 1588 two of these figures were cut away, and the lower halves of those remaining were also removed, so that the figures are now only half length. The faces and figures are drawn in a very striking manner, being realistic and full of graceful action, very different from the mosaics of a later period, which were dominated by Byzantine tradition.

In France were many specimens of the mosaics of the fifth century. But literary descriptions are all that have survived of these works, which might once have been seen at Nantes, Tours, and Clermont.

Ravenna is the shrine of the craft in the fifth and sixth centuries. It is useless in so small a space to attempt to describe or do justice to these incomparable walls,

MOSAIC FROM RAVENNA; THEODORA AND HER SUITE, 16TH CENTURY

where gleam the marvellous procession of white robed virgins, and where glitters the royal cortège of Justinian and Theodora. The acme of the art was reached when these mural decorations were planned and executed, and the churches of Ravenna may be considered the central museum of the world for a study of mosaic.

Among those who worked at Ravenna a few names have descended. These craftsmen were, Cuserius, Paulus, Janus, Statius and Stephanus, but their histories are vague. Theodoric also brought some mosaic artists from Rome to work in Ravenna, which fact accounts for a Latin influence discernible in these mosaics, which are in many instances free from Byzantine stiffness. The details of the textiles in the great mosaics of Justinian and Theodora are rarely beautiful. The chlamys with which Justinian is garbed is covered with circular interlaces with birds in them; on the border of the Empress's robe are embroideries of the three Magi presenting their gifts; on one of the robes of the attendants there is a pattern of ducks swimming, while another is ornamented with leaves of a five-pointed form.

There is a mosaic in the Tomb of Galla Placida in Ravenna, representing St. Lawrence, cheerfully approaching his gridiron, with the Cross and an open book encumbering his hands, while in a convenient corner stands a little piece of furniture resembling a meat-safe, containing the Four Gospels. The saint is walking briskly, and is fully draped; the gridiron is

of the proportions of a cot bedstead, and has a raging fire beneath it, — a gruesome suggestion of the martyrdom.

No finer examples of the art of the colourist in mosaic can be seen than in the procession of Virgins at San Apollinaire Nuovo in Ravenna. Cool, restrained, and satisfying, the composition has all the elements of chromatic perfection. In the golden background occasional dots of light and dark brown serve to deepen the tone into a slightly bronze colour. The effect is especially scintillating and rich, more like hammered gold than a flat sheet. The colours in the trees are dark and light green, while the Virgins, in brown robes, with white draperies over them, are relieved with little touches of gold. The whole tone being thus green and russet, with purplish lines about the halos, is an unusual colour-scheme, and can hardly carry such conviction in a description as when it is seen.

In the East, the Church of Sta. Sophia at Constantinople exhibited the most magnificent specimens of this work; the building was constructed under Constantine, by the architects Anthemius and Isidore, and the entire interior, walls and dome included, was covered by mosaic pictures.

Among important works of the seventh century is the apse of St. Agnese, in Rome. Honorius decorated the church, about 630, and it is one of the most effective mosaics in Rome. At St. John Lateran, also, Pope John IV. caused a splendid work to be carried out,

which has been reported as being as "brilliant as the sacred waters."

In the eighth century a magnificent achievement was accomplished in the monastery of Centula, in Picardie, but all traces of this have been lost, for the convent was burnt in 1131. The eighth was not an active century for the arts, for in 726 Leo's edict was sent forth, prohibiting all forms of image worship, and at a Council at Constantinople in 754 it was decided that all iconographic representation and all use of symbols (except in the Sacrament) were blasphemous. Idolatrous monuments were destroyed, and the iconoclasts continued their devastations until the death of Theophilus in 842. Fortunately this wave of zeal was checked before the destruction of the mosaics in Ravenna and Rome, but very few specimens survived in France.

In the ninth century a great many important monuments were added, and a majority of the mosaics which may still be seen, date from that time: they are not first in quality, however, although they are more numerous. After this, there was a period of inanition, in this art as in all others, while the pseudo-prophets awaited the ending of the world. After the year 1000 had passed, and the astonished people found that they were still alive, and that the world appeared as stable as formerly, interest began to revive, and the new birth of art produced some significant examples in the field of mosaic. There was some activity in Germany, for a time, the versatile Bishop Bernward of Hildesheim adding this

craft to his numerous accomplishments, although it is probable that his works resembled the graffiti and inlaid work rather than the mosaics composed of cubes of smalt.

At the Monastery of Monte Cassino in the eleventh century was an interesting personality, — the Abbé Didier, its Superior. About 1066 he brought workers from Constantinople, who decorated the apse and walls of the basilica under his direction. At the same time, he established a school at the monastery, and the young members were instructed in the arts and crafts of mosaic and inlay, and the illumination of books. Greek influence was thus carried into Italy through Monte Cassino.

In the twelfth century the celebrated Suger of St. Denis decorated one of the porches of his church with mosaic, in smalt, marbles, and gold; animal and human forms were introduced in the ornament. But this may not have been work actually executed on the spot, for another narrator tells us that Suger brought home from Italy, on one of his journeys, a mosaic, which was placed over the door at St. Denis; as it is no longer in its position, it is not easy to determine which account is correct.

The mosaics at St. Mark's in Venice were chiefly the work of two centuries and a half. Greek artists were employed in the main, bringing their own tesseræ and marbles. In 1204 there was special activity in this line, at the time when the Venetians took Constantinople. After this, an establishment for making the smalts and

gold glass was set up at Murano, and Venice no longer imported its material.

The old Cathedral at Torcello has one of the most perfect examples of the twelfth century mosaic in the world. The entire west end of the church is covered with a rich display of figures and Scriptural scenes. A very lurid Hell is exhibited at the lower corner, in the depths of which are seen stewing, several Saracens, with large hoop earrings. Their faces are highly expressive of discomfort. This mosaic is full of genuine feeling; one of the subjects is Amphitrite riding a seahorse, among those who rise to the surface when "the sea gives up its dead." The Redeemed are seen crowding round Abraham, who holds one in his bosom; they are like an infant class, and are dressed in uniform pinafores, intended to look like little ecclesiastical vestments! The Dead who are being given up by the Earth are being vomited forth by wild animals — this is original, and I believe, almost the only occasion on which this form of literal resurrection is represented.

In the thirteenth century a large number of mosaic artists appeared in Florence, many of whose names and histories are available. In the Baptistery, Andrea Tafi, who lived between 1213 and 1294, decorated the cupola. With him were two assistants who are known by name — Apollonius a Greek, which in part accounts for the stiff Byzantine figures in this work, and another who has left his signature, "Jacobus Sancti Francisci Frater" — evidently a monastic craftsman. Gaddo

Gaddi also assisted in this work, executing the Prophets which occur under the windows, and professing to combine in his style "the Greek manner and that of Cimabue." Apollonius taught Andrea Tafi how to compose the smalt and to mix the cement, but this latter was evidently unsuccessful, for in the next century the mosaic detached itself and fell badly, when Agnolo Gaddi, the grandson of Gaddo, was engaged to restore it. Tafi, Gaddi, and Jacobus were considered as a promising firm, and they undertook other large works in mosaic. They commenced the apse at Pisa, which was finished in 1321 by Vicini, Cimabue designing the colossal figure of Christ which thus dominates the cathedral.

Vasari says that Andrea Tafi was considered "an excellent, nay, a divine artist" in his specialty. Andrea, himself more modest, visited Venice, and deigned to take instruction from Greek mosaic workers, who were employed at St. Mark's. One of them, Apollonius, became attached to Tafi, and this is how he came to accompany him to Florence. The work on the Baptistery was done actually *in situ*, every cube being set directly in the plaster. The work is still extant, and the technical and constructive features are perfect, since their restoration. It is amusing to read Vasari's patronizing account of Tafi; from the late Renaissance point of view, the mosaic worker seemed to be a barbarous Goth at best: "The good fortune of Andrea was really great," says Vasari, "to be born in an age which, doing

all things in the rudest manner, could value so highly the works of an artist who really merited so little, not to say nothing!"

Gaddo Gaddi was a painstaking worker in mosaic, executing some works on a small scale entirely in egg-shells of varying tints. In the Baroncelli chapel in Florence is a painting by Taddeo Gaddi, in which occur the portraits of his father, Gaddo Gaddi, and Andrea Tafi.

About this time the delightful mosaic at St. Clemente, in Rome, was executed. With its central cross and graceful vine decorations, it stands out unique among the groups of saints and seraphs, of angels and hierarchies, of most of the Roman apsidal ornaments. The mosaic in the basilica of St. John Lateran is by Jacopo Torriti. In the design there are two inconspicuous figures, intentionally smaller than the others, of two monks on their knees, working, with measure and compass. These represent Jacopo Torriti and his co-worker, Camerino. One of them is inscribed (translated) "Jacopo Torriti, painter, did this work," and the other, "Brother Jacopo Camerino, companion of the master worker, commends himself to the blessed John." The tools and implements used by mosaic artists are represented in the hands of these two monks. Torriti was apparently a greater man in some respects than his contemporaries. He based his art rather on Roman than Greek tradition, and his works exhibit less Byzantine formality than many mosaics of the period. On

the apse of Sta. Maria Maggiore there appears a signature, "Jacopo Torriti made this work in mosaic." Gaddo Gaddi also added a composition below the vault, about 1308.

The well-known mosaic called the Navicella in the atrium of St. Peter's, Rome, was originally made by Giotto. It has been much restored and altered, but some of the original design undoubtedly remains. Giotto went to Rome to undertake this work in 1298; but the present mosaic is largely the restoration of Bernini, who can hardly be considered as a sympathetic interpreter of the early Florentine style. Vasari speaks of the Navicella as "a truly wonderful work, and deservedly eulogized by all enlightened judges." He marvels at the way in which Giotto has produced harmony and interchange of light and shade so cleverly: "with mere pieces of glass" (Vasari is so naïvely overwhelmed with ignorance when he comes to deal with handicraft) especially on the large sail of the boat.

In Venice, the Mascoli chapel was ornamented by scenes from the life of the Virgin, in 1430. The artist was Michele Zambono, who designed and superintended the work himself. At Or San Michele in Florence, the painter Peselli, or Guliano Arrigo, decorated the tabernacle, in 1416. Among other artists who entered the field of mosaic, were Baldovinetti and Domenico Ghirlandajo, the painter who originated the motto: "The only painting for eternity is mosaic."

In the sixteenth century the art of mosaic ceased to

observe due limitations. The ideal was to reproduce exactly in mosaic such pictures as were prepared by Titian, Pordenone, Raphael, and other realistic painters. Georges Sand, in her charming novel, "Les Maitres Mosaïstes," gives one the atmosphere of the workshops in Venice in this later period. Tintoretto and Zuccato, the aged painter, are discussing the durability of mosaic: — "Since it resists so well," says Zuccato, "how comes it that the Seignory is repairing all the domes of St. Mark's, which to-day are as bare as my skull?" To which Tintoretto makes answer: "Because at the time when they were decorated with mosaics, Greek artists were scarce in Venice. They came from a distance, and remained but a short time: their apprentices were hastily trained, and executed the works entrusted to them without knowing their business, and without being able to give them the necessary solidity. Now that this art has been cultivated in Venice, century after century, we have become as skilful as even the Greeks were." The two sons of Zuccato, who are engaged in this work, confide to each other their trials and difficulties in the undertaking: like artists of all ages, they cannot easily convince their patrons that they comprehend their art better than their employers! Francesco complains of the Procurator, who is commissioned to examine the work: "He is not an artist. He sees in mosaic only an application of particles more or less brilliant. Perfection of tone, beauty of design, ingenuity of composition, are nothing to him. . . . Did

I not try in vain the other day to make him understand that the old pieces of gilded crystal used by our ancestors and a little tarnished by time, were more favourable to colour than those manufactured to-day?" "Indeed, you make a mistake, Messer Francesco," said he, "in handing over to the Bianchini all the gold of modern manufacture. The Commissioners have decided that the old will do mixed with the new." . . . "But did I not in vain try to make him understand that this brilliant gold would hurt the faces, and completely ruin the effect of colour?" . . . The answer of the Procurator was, "The Bianchini do not scruple to use it, and their mosaics please the eye much better than yours," so his brother Valerio, laughing, asks, "What need of worrying yourself after such a decision as that? Suppress the shadows, cut a breadth of material from a great plate of enamel and lay it over the breast of St. Nicaise, render St. Cecilia's beautiful hair with a badly cut tile, a pretty lamb for St. John the Baptist, and the Commission will double your salary and the public clap its hands. Really, my brother, you who dream of glory, I do not understand how you can pledge yourself to the worship of art." "I dream of glory, it is true," replied Francesco, "but of a glory that is lasting, not the vain popularity of a day. I should like to leave an honoured name, if not an illustrious one, and make those who examine the cupolas of St. Mark's five hundred years hence say, 'This was the work of a conscientious artist.'" A description follows of the scene of the mosaic workers

MOSAIC IN BAS-RELIEF, NAPLES

pursuing their calling. "Here was heard abusive language, there the joyous song; further on, the jest; above, the hammer: below, the trowel: now the dull and continuous thud of the tampon on the mosaics, and anon the clear and crystal like clicking of the glass-ware rolling from the baskets on to the pavement, in waves of rubies and emeralds. Then the fearful grating of the scraper on the cornice, and finally the sharp rasping cry of the saw in the marble, to say nothing of the low masses said at the end of the chapel in spite of the racket."

The Zuccati were very independent skilled workmen, as well as being able to design their own subjects. They were, in the judgment of Georges Sand, superior to another of the masters in charge of the works, Bozza, who was less of a man, although an artist of some merit. Later than these men, there were few mosaic workers of high standing; in Florence the art degenerated into a mere decorative inlay of semi-precious material, heraldic in feeling, costly and decorative, but an entirely different art from that of the Greeks and Romans. Lapis-lazuli with gold veinings, malachite, coral, alabaster, and rare marbles superseded the smalts and gold of an elder day.

CHAPTER XI

ILLUMINATION OF BOOKS

One cannot enter a book shop or a library to-day without realizing how many thousands of books are in constant circulation. There was an age when books were laboriously but most beautifully written, instead of being thus quickly manufactured by the aid of the type-setting machine; the material on which the glossy text was executed was vellum instead of the cheap paper of to-day, the illustrations, instead of being easily reproduced by photographic processes, were veritable miniature paintings, most decorative, ablaze with colour and fine gold, — in these times it is easy to forget that there was ever a period when the making of a single book occupied years, and sometimes the life-time of one or two men.

In those days, when the transcription of books was one of the chief occupations in religious houses, the recluse monk, in the quiet of the scriptorium, was, in spite of his seclusion, and indeed, by reason of it, the chief link between the world of letters and the world of men.

The earliest known example of work by a European monk dates from the year 517; but shortly after this there was a great increase in book making, and monasteries were founded especially for the purpose of perpetuating literature. The first establishment of this sort was the monastery of Vivaria, in Southern Italy, founded by Cassiodorus, a Greek who lived between the years 479 and 575, and who had been the scribe (or "private secretary") of Theodoric the Goth. About the same time, St. Columba in Ireland founded a house with the intention of multiplying books, so that in the sixth century, in both the extreme North and in the South, the religious orders had commenced the great work of preserving for future ages the literature of the past and of their own times.

Before examining the books themselves, it will be interesting to observe the conditions under which the work was accomplished. Sometimes the scriptorium was a large hall or studio, with various desks about; sometimes the North walk of the cloister was divided into little cells, called "carrels," in each of which was room for the writer, his desk, and a little shelf for his inks and colours. These carrels may be seen in unusual perfection in Gloucester. In very cold weather a small brazier of charcoal was also introduced.

Cassiodorus writes thus of the privilege of being a copyist of holy books. "He may fill his mind with the Scriptures while copying the sayings of the Lord; with his fingers he gives life to men and arms against the

wiles of the Devil; as the antiquarius copies the word of Christ, so many wounds does he inflict upon Satan. What he writes in his cell will be carried far and wide over distant provinces. Man multiplies the word of Heaven: if I may dare so to speak, the three fingers of his right hand are made to represent the utterances of the Holy Trinity. The fast travelling reed writes down the holy words, thus avenging the malice of the wicked one, who caused a reed to be used to smite the head of the Saviour."

When the scriptorium was consecrated, these words were used (and they would be most fitting words to-day, in the consecration of libraries or class rooms which are to be devoted to religious study): "Vouchsafe, O, Lord, to bless this workroom of thy servants, that all which they write therein may be comprehended by their intelligence, and realized by their work." Scriptorium work was considered equal to labour in the fields. In the Rule of St. Fereol, in the sixth century, there is this clause: "He who doth not turn up the earth with his plough, ought to write the parchment with his fingers." The Capitulary of Charlemagne contains this phrase: "Do not permit your scribes or pupils, either in reading or writing, to garble the text; when you are preparing copies of the Gospels, the Psalter, or the Missal, see that the work is confided to men of mature age, who will write with due care." Some of the scribes were prolific book transcribers. Jacob of Breslau, who died in 1480, copied so many books that

it is said that "six horses could with difficulty bear the burden of them!"

The work of each scriptorium was devoted first to the completion of the library of the individual monastery, and after that, to other houses, or to such patrons as were rich enough to order books to be transcribed for their own use. The library of a monastery was as much a feature as the scriptorium. The monks were not like the rising literary man, who, when asked if he had read "Pendennis" replied, "No — I never read books — I write them." Every scribe was also a reader. There was a regular system of lending books from the central store. A librarian was in charge, and every monk was supposed to have some book which he was engaged in reading "straight through" as the Rule of St. Benedict enjoins, just as much as the one which he was writing. As silence was obligatory in the scriptorium and library, as well as in the cloisters, they were forced to apply for the volumes which they desired by signs. For a general work, the sign was to extend the hand and make a movement as if turning over the leaves of a book. If a Missal was wanted, the sign of the cross was added to the same form; for a Gospel, the sign of the cross was made upon the forehead, while those who wished tracts to read, should lay one hand on the mouth and the other on the stomach; a Capitulary was indicated by the gesture of raising the clasped hands to heaven, while a Psalter could be obtained by raising the hands above the head in the form of a crown. As the good brothers

were not possessed of much religious charity, they indicated a secular book by scratching their ears, as dogs are supposed to do, to imply the suggestion that the infidel who wrote such a book was no better than a dog!

This extract is made from a book in one of the early monastic libraries. "Oh, Lord, send the blessing of thy Holy Spirit upon these books, that, cleansing them from all earthly things, they may mercifully enlighten our hearts, and give us true understanding, and grant that by their teaching they may brightly preserve and make a full abundance of good works according to Thy will." The books were kept in cupboards, with doors; in the Customs of the Augustine Priory of Barnwell, these directions are given: "The press in which the books are kept ought to be lined with wood, that the damp of the walls may not moisten or stain the books. The press should be divided vertically as well as horizontally, by sundry partitions, on which the books may be ranged so as to be separated from one another, for fear they be packed so close as to injure one another, or to delay those who want them."

We read of the "chained books" of the Middle Ages, and I think there is a popular belief that this referred to the fact that the Bible was kept in the priest's hands, and chained so that the people should not be able to read it for themselves and become familiar with every part of it. This, however, is a mistake. It was the books in the libraries which were chained, so that dishonest people should not make way with them! In one Chapter

Library, there occurs a denunciation of such thieves, and instructions how to fasten the volumes. It reads as follows: "Since to the great reproach of the Nation, and a greater one to our Holy Religion, the thievish disposition of some who enter libraries to learn no good there, hath made it necessary to secure the sacred volumes themselves with chains (which are better deserved by those ill persons, who have too much learning to be hanged, and too little to be honest), care shall be taken that the chains should neither be too long nor too clumsy, more than the use of them requires: and that the loops whereby they are fastened to the books may be rivetted on such a part of the cover, and so smoothly, as not to gall or graze the books, while they are moved to or from their respective places. And forasmuch as the more convenient way to place books in libraries is to turn their backs out showing the title and other decent ornaments in gilt work which ought not to be hidden, this new method of fixing the chain to the back of the book is recommended until one more suitable shall be contrived."

Numerous monasteries in England devoted much time to scriptorium work. In Gloucester may still be seen the carrels of the scribes in the cloister wall, and there was also much activity in the book making art in Norwich, Glastonbury, and Winchester, and in other cities. The two monasteries of St. Peter and St. Swithin in Winchester were, the chronicler says, "so close packed together, . . . that between the foundation of their

respective buildings there was barely room for a man to pass along. The choral service of one monastery conflicted with that of the other, so that both were spoiled, and the ringing of their bells together produced a horrid effect."

One of the most important monasteries of early times, on the Continent, was that conducted by Alcuin, under the protection of Charlemagne. When the appointed time for writing came round, the monks filed into the scriptorium, taking their places at their desks. One of their number then stood in the midst, and read aloud, slowly, for dictation, the work upon which they were engaged as copyists; in this way, a score of copies could be made at one time. Alcuin himself would pass about among them, making suggestions and correcting errors, a beautiful example of true consecration, the great scholar spending his time thus in supervising the transcription of the Word of God, from a desire to have it spread far and wide. Alcuin sent a letter to Charlemagne, accompanying a present of a copy of the Bible, at the time of the emperor's coronation, and from this letter, which is still preserved, it may be seen how reverent a spirit his was, and how he esteemed the things of the spiritual life as greater than the riches of the world. "After deliberating a long while," he writes, "what the devotion of my mind might find worthy of a present equal to the splendour of your Imperial dignity, and the increase of your wealth, — at length by the inspiration of the Holy Spirit, I found what it

would be competent for me to offer, and fitting for your prudence to accept. For to me inquiring and considering, nothing appeared more worthy of your peaceful honour than the gifts of the Sacred Scriptures . . . which, knit together in the sanctity of one glorious body, and diligently amended, I have sent to your royal authority, by this your faithful son and servant, so that with full hands we may assist at the delightful service of your dignity." One of Alcuin's mottoes was: "Writing books is better than planting vines: for he who plants a vine serves his belly, while he who writes books serves his soul."

Many different arts were represented in the making of a mediæval book. Of those employed, first came the scribe, whose duty it was to form the black even glossy letters with his pen; then came the painter, who must not only be a correct draughtsman, and an adept with pencil and brush, but must also understand how to prepare mordaunts and to lay the gold leaf, and to burnish it afterwards with an agate, or, as an old writer directs, "a dogge's tooth set in a stick." After him, the binder gathered the lustrous pages and put them together under silver mounted covers, with heavy clasps. At first, the illuminations were confined only to the capital letters, and red was the selected colour to give this additional life to the evenly written page. The red pigment was known as "minium." The artist who applied this was called a "miniator," and from this, was derived the term "miniature," which later referred to

A SCRIBE AT WORK; 12TH CENTURY MANUSCRIPT

the pictures executed in the developed stages of the art. The use of the word "miniature," as applied to paintings on a small scale, was evolved from this expression.

The difficulties were numerous. First, there was climate and temperature to consider. It was necessary to be very careful about the temperature to which gold leaf was exposed, and in order to dry the sizing properly, it was important that the weather should not be too damp nor too warm. Peter de St. Audemar, writing in the late thirteenth century, says: "Take notice that you ought not to work with gold or colours in a damp place, on account of the hot weather, which, as it is often injurious in burnishing gold, both to the colours on which the gold is laid and also to the gilding, if the work is done on parchment, so also it is injurious when the weather is too dry and arid." John Acherius, in 1399, observes, too, that "care must be taken as regards the situation, because windy weather is a hindrance, unless the gilder is in an enclosed place, and if the air is too dry, the colour cannot hold the gold under the burnisher." Illumination is an art which has always been difficult; we who attempt it to-day are not simply facing a lost art which has become impossible because of the changed conditions; even when followed along the best line in the best way the same trials were encountered.

Early treatises vary regarding the best medium for laying leaf on parchment. There are very few vehicles which will form a connecting and permanent link between these two substances. There is a general impression that white of egg was used to hold the gold: but any one who has experimented knows that it is impossible to fasten metal to vellum by white of egg

alone. Both oil and wax were often employed, and in nearly all recipes the use of glue made of boiled-down vellum is enjoined. In some of the monasteries there are records that the scribes had the use of the kitchen for drying parchment and melting wax.

The introductions to the early treatises show the spirit in which the work was undertaken. Peter de St. Audemar commences: "By the assistance of God, of whom are all things that are good, I will explain to you how to make colours for painters and illuminators of books, and the vehicles for them, and other things appertaining thereto, as faithfully as I can in the following chapters." Peter was a North Frenchman of the thirteenth century.

Of the recipes given by the early treatises, I will quote a few, for in reality they are all the literature we have upon the subject. Eraclius, who wrote in the twelfth century, gives accurate directions: "Take ochre and distemper it with water, and let it dry. In the meanwhile make glue with vellum, and whip some white of egg. Then mix the glue and the white of egg, and grind the ochre, which by this time is well dried, upon a marble slab; and lay it on the parchment with a paint brush; . . . then apply the gold, and let it remain so, without pressing it with the stone. When it is dry, burnish it well with a tooth. This," continues Eraclius naïvely, "is what I have learned by experiment, and have frequently proved, and you may safely believe me that I shall have told you the truth." This assurance of good

faith suggests that possibly it was a habit of illuminators to be chary of information, guarding their own discoveries carefully, and only giving out partial directions to others of their craft.

In the Bolognese Manuscript, one is directed to make a simple size from incense, white gum, and sugar candy, distempering it with wine; and in another place, to use the white of egg, whipped with the milk of the fig tree and powdered gum Arabic. Armenian Bole is a favourite ingredient. Gum and rose water are also prescribed, and again, gesso, white of egg, and honey. All of these recipes sound convincing, but if one tries them to-day, one has the doubtful pleasure of seeing the carefully laid gold leaf slide off as soon as the whole mixture is quite dry. Especially improbable is the recipe given in the Brussels Manuscript: "You lay on gold with well gummed water alone, and this is very good for gilding on parchment. You may also use fresh white of egg or fig juice alone in the same manner."

Theophilus does not devote much time or space to the art of illuminating, for, as he is a builder of everything from church organs to chalices, glass windows, and even to frescoed walls, we must not expect too much information on minor details. He does not seem to direct the use of gold leaf at all, but of finely ground gold, which shall be applied with its size in the form of a paste, to be burnished later. He says (after directing that the gold dust shall be placed in a shell): "Take pure minium and add to it a third part of cinnibar, grinding

it upon a stone with water. Which, being carefully ground, beat up the clear white of an egg, in summer with water, in winter without water," and this is to be used as a slightly raised bed for the gold. "Then," he continues, "place a little pot of glue on the fire, and when it is liquefied, pour it into the shell of gold and wash it with it." This is to be painted on to the gesso ground just mentioned, and when quite dry, burnished with an agate. This recipe is more like the modern Florentine method of gilding in illumination.

Concerning the gold itself, there seem to have been various means employed for manufacturing substitutes for the genuine article. A curious recipe is given in the manuscript of Jehan de Begue, "Take bulls' brains, put them in a marble vase, and leave them for three weeks, when you will find gold making worms. Preserve them carefully." More quaint and superstitious is Theophilus' recipe for making Spanish Gold; but, as this is not quotable in polite pages, the reader must refer to the original treatise if he cares to trace its manufacture.

Brushes made of hair are recommended by the Brussels manuscript, with a plea for "pencils of fishes' hairs for softening." If this does not refer to *sealskin,* it is food for conjecture!

And for the binding of these beautiful volumes, how was the leather obtained? This is one way in which business and sport could be combined in the monastery, Warton says, "About the year 790, Charlemagne granted an unlimited right of hunting to the Abbot

and monks of Sithiu, for making . . . of the skins of the deer they killed . . . covers for their books." There is no doubt that it had occurred to artists to experiment upon human skin, and perhaps the fact that this was an unsatisfactory texture is the chief reason why no books were made of it. A French commentator observes: "The skin of a man is nothing compared with the skin of a sheep. . . . Sheep is good for writing on both sides, but the skin of a dead man is just about as profitable as his bones, — better bury him, skin and bones together."

There was some difficulty in obtaining manuscripts to copy. The Breviary was usually enclosed in a cage; rich parishioners were bribed by many masses and prayers, to bequeath manuscripts to churches. In old Paris, the Parchment Makers were a guild of much importance. Often they combined their trade with tavern keeping, in the twelfth and thirteenth centuries. The Rector of the University was glad when this occurred, for the inn keeper and parchment maker was under his control, both being obliged to reside in the Pays Latin. Bishops were known to exhort the parchment makers, from the pulpit, to be honest and conscientious in preparing skins. A bookseller, too, was solemnly made to swear "faithfully to receive, take care of, and expose for sale the works which should be entrusted to him." He might not buy them for himself until they had been for sale a full month "at the disposition of the Masters and Scholars." But in return for these

restrictions, the bookseller was admitted to the rights and privileges of the University. As clients of the University, these trades, which were associated with book making, joined in the "solemn processions" of those times; booksellers, binders, parchment makers, and illuminators, all marched together on these occasions. They were obliged to pay toll to the Rector for these privileges; the recipe for ink was a carefully guarded secret.

It now becomes our part to study the books themselves, and see what results were obtained by applying all the arts involved in their making.

The transition from the Roman illuminations to the Byzantine may be traced to the time when Constantine moved his seat of government from Rome to Constantinople. Constantinople then became the centre of learning, and books were written there in great numbers. For some centuries Constantinople was the chief city in the art of illuminating. The style that here grew up exhibited the same features that characterized Byzantine art in mosaic and decoration. The Oriental influence displayed itself in a lavish use of gold and colour; the remnant of Classical art was slight, but may sometimes be detected in the subjects chosen, and the ideas embodied. The Greek influence was the strongest. But the Greek art of the seventh and eighth centuries was not at all like the Classic art of earlier Greece; a conventional type had entered with Christianity, and is chiefly recognized by a stubborn conformity to precedent. It

is difficult to date a Byzantine picture or manuscript, for the same severe hard form that prevailed in the days of Constantine is carried on to-day by the monks of Mt. Athos, and a Byzantine work of the ninth century is not easily distinguished from one of the fifteenth. In manuscripts, the caligraphy is often the only feature by which the work can be dated.

In the earlier Byzantine manuscripts there is a larger proportion of Classical influence than in later ones, when the art had taken on its inflexible uniformity of design. One of the most interesting books in which this classical influence may be seen is in the Imperial Library at Vienna, being a work on Botany, by Dioscorides, written about 400 A. D. The miniatures in this manuscript have many of the characteristics of Roman work.

The pigments used in Byzantine manuscripts are glossy, a great deal of ultramarine being used. The high lights are usually of gold, applied in sharp glittering lines, and lighting up the picture with very decorative effect. In large wall mosaics the same characteristics may be noted, and it is often suggested that these gold lines may have originated in an attempt to imitate cloisonné enamel, in which the fine gold line separates the different coloured spaces one from another. This theory is quite plausible, as cloisonné was made by the Byzantine goldsmiths.

M. Lecoy de la Marche tells us that the first recorded name of an illuminator is that of a woman — Lala de

Cizique, a Greek, who painted on ivory and on parchment in Rome during the first Christian century. But such a long period elapses between her time and that which we are about to study, that she can here occupy only the position of being referred to as an interesting isolated case.

The Byzantine is a very easy style to recognize, because of the inflexible stiffness of the figures, depending for any beauty largely upon the use of burnished gold, and the symmetrical folds of the draperies, which often show a sort of archaic grace. Byzantine art is not so much representation as suggestion and symbolism. There is a book which may still be consulted, called "A Byzantine Guide to Painting," which contains accurate recipes to be followed in painting pictures of each saint, the colours prescribed for the dress of the Virgin, and the grouping to be adopted in representing each of the standard Scriptural scenes; and it has hardly from the first occurred to any Byzantine artist to depart from these regulations. The heads and faces lack individuality, and are outlined and emphasized with hard, unsympathetic black lines; the colouring is sallow and the expression stolid. Any attempt at delineating emotion is grotesque, and grimacing. The beauty, for in spite of all these drawbacks there is great beauty, in Byzantine manuscripts, is, as has been indicated, a charm of colour and gleaming gold rather than of design. In the Boston Art Museum there is a fine example of a large single miniature of a Byzantine "Flight into

Egypt," in which the gold background is of the highest perfection of surface, and is raised so as to appear like a plate of beaten gold.

There is no attempt to portray a scene as it might have occurred; the rule given in the Manual is followed, and the result is generally about the same. The background is usually either gold or blue, with very little effort at landscape. Trees are represented in flat values of green with little white ruffled edges and articulations. The sea is figured by a blue surface with a symmetrical white pattern of a wavy nature. A building is usually introduced about half as large as the people surrounding it. There is no attempt, either, at perspective.

The anatomy of the human form was not understood at all. Nearly all the figures in the art of this period are draped. Wherever it is necessary to represent the nude, a lank, disproportioned person with an indefinite number of ribs is the result, proving that the monastic art school did not include a life class.

Most of the best Byzantine examples date from the fifth to the seventh centuries. After that a decadence set in, and by the eleventh century the art had deteriorated to a mere mechanical process.

The Irish and Anglo-Saxon work are chiefly characterized in their early stages by the use of interlaced bands as a decorative motive. The Celtic goldsmiths were famous for their delicate work in filigree, made of threads of gold used in connection with enamelled grounds. In decorating their manuscripts, the artists were perhaps

unconsciously influenced by this, and the result is a marvellous use of conventional form and vivid colours, while the human figure is hardly attempted at all, or, when introduced, is so conventionally treated, as to be only a sign instead of a representation.

Probably the earliest representation of a pen in the holder, although of a very primitive pattern, occurs in a miniature in the Gospels of Mac Durnam, where St. John is seen writing with a pen in one hand and a knife, for sharpening it, in the other. This picture is two centuries earlier than any other known representation of the use of the pen, the volume having been executed in the early part of the eighth century.

Two of the most famous Irish books are the Book of Kells, and the Durham Book. The Book of Kells is now in Trinity College, Dublin. It is also known as the Gospel of St. Columba. St. Columba came, as the Chronicle of Ethelwerd states, in the year 565: "five years afterwards Christ's servant Columba came from Scotia (Ireland) to Britain, to preach the word of God to the Picts."

The intricacy of the interlacing decoration is so minute that it is impossible to describe it. Each line may be followed to its conclusion, with the aid of a strong magnifying glass, but cannot be clearly traced with the naked eye. Westwood reports that, with a microscope, he counted in one square inch of the page, one hundred and fifty-eight interlacements of bands, each being of white, bordered on either side with a black line. In this

DETAIL FROM THE DURHAM BOOK

book there is no use of gold, and the treatment of the human form is most inadequate. There is no idea of drawing except for decorative purposes; it is an art of the pen rather than of the brush — it hardly comes into the same category as most of the books designated as illuminated manuscripts. The so-called Durham Book, or the Gospels of St. Cuthbert, was executed at the Abbey of Lindisfarne, in 688, and is now in the British Museum. There is a legend that in the ninth century pirates plundered the Abbey, and the few monks who survived decided to seek a situation less unsafe than that on the coast, so they gathered up their treasures, the body of the saint, their patron, Cuthbert, and the book, which had been buried with him, and set out for new lands. They set sail for Ireland, but a storm arose, and their boat was swamped. The body and the book were lost. After reaching land, however, the fugitives discovered the box containing the book, lying high and dry upon the shore, having been cast up by the waves in a truly wonderful state of preservation. Any one who knows the effect of dampness upon parchment, and how it cockles the material even on a damp day, will the more fully appreciate this miracle.

Giraldus Cambriensis went to Ireland as secretary to Prince John, in 1185, and thus describes the Gospels of Kildare, a book which was similar to the Book of Kells, and his description may apply equally to either volume. "Of all the wonders of Kildare I have found nothing more wonderful than this marvellous book,

written in the time of the Virgin St. Bridget, and, as they say, at the dictation of an angel. Here you behold the magic face divinely drawn, and there the mystical forms of the Evangelists, there an eagle, here a calf, so closely wrought together, that if you look carelessly at them, they would seem rather like a uniform blot than like an exquisite interweavement of figures; exhibiting no perfection of skill or art, where all is really skill and perfection of art. But if you look closely at them with all the acuteness of sight that you can command, and examine the inmost secrets of this wondrous art, you will discover such delicate, such wonderful and finely wrought lines, twisted and interwoven with such intricate knots and adorned with such fresh and brilliant colours, that you will readily acknowledge the whole to have been the work of angelic rather than human skill."

At first gold was not used at all in Irish work, but the manuscripts of a slightly later date, and especially of the Anglo-Saxon school, show a superbly decorative use both of gold and silver. The "Coronation Oath Book of the Anglo-Saxon Kings" is especially rich in this exquisite metallic harmony. By degrees, also, the Anglo-Saxons became more perfected in the portrayal of the human figure, so that by the twelfth century the work of the Southern schools and those of England were more alike than at any previous time.

In the Northern manuscripts of the eleventh and twelfth centuries it is amusing to note that the bad

IVY PATTERN, FROM A 14TH CENTURY FRENCH MANUSCRIPT

characters are always represented as having large hooked noses, which fact testifies to the dislike of the Northern races for the Italians and Southern peoples.

The thirteenth and fourteenth centuries may be considered to stand for the "Golden Age" of miniature art in all the countries of Europe. In England and France especially the illuminated books of the thirteenth century were marvels of delicate work, among which the Tenison Psalter and the Psalter of Queen Mary, both in the British Museum, are excellent examples. Queen Mary's Psalter was not really painted for Queen Mary; it was executed two centuries earlier. But it was being sent abroad in 1553, and was seized by the Customs. They refused to allow it to pass. Afterwards it was presented to Queen Mary.

At this time grew up a most beautiful and decorative style, known as "ivy pattern," consisting of little graceful flowering sprays, with tiny ivy leaves in gold and colours. The Gothic feeling prevails in this motive, and the foliate forms are full of spined cusps. The effect of a book decorated in the ivy pattern, is radiant and jewelled as the pages turn, and the burnishing of the gold was brought to its full perfection at this time. The value of the creamy surface of the vellum was recognized as part of the colour scheme. With the high polish of the gold it was necessary to use always the strong crude colours, as the duller tints would appear faded by contrast. In the later stages of the art, when a greater realism was attempted, and better drawing had

MEDIÆVAL ILLUMINATION

made it necessary to use quieter tones, gold paint was generally adopted instead of leaf, as being less conspicuous and more in harmony with the general scheme; and one of the chief glories of book decoration died in this change.

The divergences of style in the work of various countries are well indicated by Walter de Gray Birch, who says: "The English are famous for clearness and breadth; the French for delicate fineness and harmoniously assorted colours, the Flemish for minutely stippled details, and the Italian for the gorgeous yet calm dignity apparent in their best manuscripts." Individuality of facial expression, although these faces are generally ugly, is a characteristic of Flemish work, while the faces in French miniatures are uniform and pretty.

One marked feature in the English thirteenth and fourteenth century books, is the introduction of many small grotesques in the borders, and these little creatures, partly animal and partly human, show a keen sense of humour, which had to display itself, even though inappropriately, but always with a true spirit of wit. One might suppose on first looking at these grotesques, that the droll expression is unintentional: that the monks could draw no better, and that their sketches are funny only because of their inability to portray more exactly the thing represented. But a closer examination will convince one that the wit was deliberate, and that the very subtlety and reserve of their expression of humour is an indication of its depth. To-day an artist

with the sense of caricature expresses himself in the illustrated papers and other public channels provided for the overflow of high spirits; but the cloistered author of the Middle Ages had only the sculptured details and the books belonging to the church as vehicles for his satire. The carvings on the miserere seats in choirs of many cathedrals were executed by the monks, and abound in witty representations of such subjects as Reynard the Fox, cats catching rats, etc.; inspired generally by the knowledge of some of the inconsistencies in the lives of ecclesiastical personages. The quiet monks often became cynical.

The spirit of the times determines the standard of wit. At various periods in the world's history, men have been amused by strange and differing forms of drollery; what seemed excruciatingly funny to our grandparents does not strike us as being at all entertaining. Each generation has its own idea of humour, and its own fun-makers, varying as much as fashion in dress.

In mediæval times, the sense of humour in art was more developed than at any period except our own day. Even while the monk was consecrating his time to the work of beautifying the sanctuary, his sense of humour was with him, and must crop out. The grotesque has always played an important part in art; in the subterranean Roman vaults of the early centuries, one form of this spirit is exhibited. But the element of wit is almost absent; it is displayed in oppressively obvious

forms, so that it loses its subtlety: it represents women terminating in floral scrolls, or sea-horses with leaves growing instead of fins. The same spirit is seen in the grotesques of the Renaissance, where the sense of humour is not emphasized, the ideal in this class of decoration being simply to fill the space acceptably, with voluptuous graceful lines, mythological monstrosities, the inexpressive mingling of human and vegetable characteristics, grinning dragons, supposed to inspire horror, and such conceits, while the attempt to amuse the spectator is usually absent.

In mediæval art, however, the beauty of line, the sense of horror, and the voluptuous spirit, are all more or less subservient to the light-hearted buoyancy of a keen sense of fun. To illustrate this point, I wish to call the attention of the reader to the wit of the monastic scribes during the Gothic period. Who could look at the little animals which are found tucked away almost out of sight in the flowery margins of many illuminated manuscripts, without seeing that the artist himself must have been amused at their pranks, and intended others to be so? One can picture a gray-hooded brother, chuckling alone at his own wit, carefully tracing a jolly little grotesque, and then stealing softly to the alcove of some congenial spirit, and in a whisper inviting his friend to come and see the satire which he has carefully introduced: "A perfect portrait of the Bishop, only with claws instead of legs! So very droll! And dear brother, while you are here, just look at the expression of this

little rabbit's ears, while he listens to the bombastic utterance of this monkey who wears a stole!"

Such a fund of playful humour is seldom found in a single book as that embodied in the Tenison Psalter, of which only a few pages remain of the work of the original artist. The book was once the property of Archbishop Tenison. These few pages show to the world the most perfect example of the delicacy and skill of the

CARICATURE OF A BISHOP

miniaturist. On one page, a little archer, after having pulled his bow-string, stands at the foot of the border, gazing upwards after the arrow, which has been caught in the bill of a stork at the top of the page. The attitude of a little fiddler who is exhibiting his trick monkeys can hardly be surpassed by caricaturists of any time. A quaint bit of cloister scandal is indicated in an initial from the Harleian Manuscript, in which a monk who has been entrusted with the cellar keys is seen availing himself of the situation, eagerly quaffing a cup of wine while he stoops before a large cask. In a German manu-

script I have seen, cuddled away among the foliage, in the margin, a couple of little monkeys, feeding a baby of their own species with pap from a spoon. The baby monkey is closely wrapped in the swathing bands with which one is familiar as the early trussing of European children. Satire and wrath are curiously blended in a German manuscript of the twelfth century, in which the scribe introduces a portrait of himself hurling a missile at a venturesome mouse who is eating the monk's cheese — a fine Camembert! — under his very nose. In the book which he is represented as transcribing, the artist has traced the words — "Pessime mus, sepius me provocas ad iram, ut te Deus perdat." ("Wicked mouse, too often you provoke me to anger — may God destroy thee!")

In their illustrations the scribes often showed how literal was their interpretation of Scriptural text. For instance, in a passage in the book known as the Utrecht Psalter, there is an illustration of the verse, "The words of the Lord are pure words; as silver tried in the furnace, purified seven times." A glowing forge is seen, and two craftsmen are working with bellows, pincers, and hammer, to prove the temper of some metal, which is so molten that a stream of it is pouring out of the furnace. Another example of this literal interpretation, is in the Psalter of Edwin, where two men are engaged in sharpening a sword upon a grindstone, in illustration of the text about the wicked, "who whet their tongue like a sword."

There is evidence of great religious zeal in the exhortations of the leaders to those who worked under them. Abbot John of Trittenham thus admonished the workers in the Scriptorium in 1486: "I have diminished your labours out of the monastery lest by working badly you should only add to your sins, and have enjoined on you the manual labour of writing and binding books. There is in my opinion no labour more becoming a monk than the writing of ecclesiastical books. . . . You will recall that the library of this monastery . . . had been dissipated, sold, or made way with by disorderly monks before us, so that when I came here I found but fourteen volumes."

It was often with a sense of relief that a monk finished his work upon a volume, as the final word, written by the scribe himself, and known as the Explicit, frequently shows. In an old manuscript in the Monastery of St. Aignan the writer has thus expressed his emotions: "Look out for your fingers! Do not put them on my writing! You do not know what it is to write! It cramps your back, it obscures your eyes, it breaks your sides and stomach!" It is interesting to note the various forms which these final words of the scribes took; sometimes the Explicit is a pathetic appeal for remembrance in the prayers of the reader, and sometimes it contains a note of warning. In a manuscript of St. Augustine now at Oxford, there is written: "This book belongs to St. Mary's of Robert's Bridge; whoever shall steal it or in any way alienate it from this house, or mutilate

it, let him be Anathema Marantha!" A later owner, evidently to justify himself, has added, "I, John, Bishop of Exeter, know not where this aforesaid house is, nor did I steal this book, but acquired it in a lawful way!"

The Explicit in the Benedictional of Ethelwold is touching: the writer asks "all who gaze on this book to ever pray that after the end of the flesh I may inherit health in heaven; this is the prayer of the scribe, the humble Godemann." A mysterious Explicit occurs at the end of an Irish manuscript of 1138, "Pray for Moelbrighte who wrote this book. Great was the crime when Cormac Mac Carthy was slain by Tardelvach O'Brian." Who shall say what revelation may have been embodied in these words? Was it in the nature of a confession or an accusation of some hitherto unknown occurrence? Coming as it does at the close of a sacred book, it was doubtless written for some important reason.

Among curious examples of the Explicit may be quoted the following: "It is finished. Let it be finished, and let the writer go out for a drink." A French monk adds: "Let a pretty girl be given to the writer for his pains." Ludovico di Cherio, a famous illuminator of the fifteenth century, has this note at the end of a book upon which he had long been engaged: "Completed on the vigil of the nativity of Our Lord Jesus Christ, on an empty stomach." (Whether this refers to an imposed penance or fast, or whether Ludovico considered that the offering of a meek and empty stomach would be especially acceptable, the reader may determine.)

There is an amusing rhymed Explicit in an early fifteenth century copy of Froissart:

> "I, Raoul Tanquy, who never was drunk
> (Or hardly more than judge or monk,)
> On fourth of July finished this book,
> Then to drink at the Tabouret myself took,
> With Pylon and boon companions more
> Who tripe with onions and garlic adore."

But if some of the monks complained or made sport of their work, there were others to whom it was a divine inspiration, and whose affection for their craft was almost fanatic, an anecdote being related of one of them, who, when about to die, refused to be parted from the book upon which he had bestowed much of his life's energy, and who clutched it in his last agony so that even death should not take it from him. The good Othlonus of Ratisbon congratulates himself upon his own ability in a spirit of humility even while he rejoices in his great skill; he says: "I think proper to add an account of the great knowledge and capacity for writing which was given me by the Lord in my childhood. When as yet a little child, I was sent to school and quickly learned my letters, and I began long before the time of learning, and without any order from my master, to learn the art of writing. Undertaking this in a furtive and unusual manner, and without any teacher, I got a habit of holding my pen wrongly, nor were any of my teachers afterwards able to correct me on that point." This very human touch comes down to us through the

ages to prove the continuity of educational experience! The accounts of his monastic labours put us to the blush when we think of such activity. "While in the monastery of Tegernsee in Bavaria I wrote many books. . . . Being sent to Franconia while I was yet a boy, I worked so hard writing that before I had returned I had nearly lost my eyesight. After I became a monk at St. Emmerem, I was appointed the school-master. The duties of the office so fully occupied my time that I was able to do the transcribing I was interested in only by nights and in holidays. . . . I was, however, able, in addition to writing the books that I had myself composed, and the copies which I gave away for the edification of those who asked for them, to prepare nineteen missals, three books of the Gospels and Epistles, besides which I wrote four service books for Matins. I wrote in addition several other books for the brethren at Fulda, for the monks at Hirschfeld, and at Amerbach, for the Abbot of Lorsch, for certain friends at Passau, and for other friends in Bohemia, for the monastery at Tegernsee, for the monastery at Preyal, for that at Obermunster, and for my sister's son. Moreover, I sent and gave at different times sermons, proverbs, and edifying writings. Afterward old age's infirmities of various kinds hindered me." Surely Othlonus was justified in retiring when his time came, and enjoying some respite from his labours!

Religious feeling in works of art is an almost indefinable thing, but one which is felt in all true emanations of the conscientious spirit of devotion. Fra Angelico

had a special gift for expressing in his artistic creations his own spiritual life; the very qualities for which he stood, his virtues and his errors, — purity, unquestioning faith in the miraculous, narrowness of creed, and gentle and adoring humility,— all these elements are seen to completeness in his decorative pictures. Perhaps this is because he really lived up to his principles. One of his favourite sayings was "He who occupies himself with the things of Christ, must ever dwell with Christ."

It is related that, in the Monastery of Maes Eyck, while the illuminators were at work in the evening, copying Holy Writ, the devil, in a fit of rage, extinguished their candles; they, however, were promptly lighted again by a Breath of the Holy Spirit, and the good work went on! Salvation was supposed to be gained through conscientious writing. A story is told of a worldly and frivolous brother, who was guilty of many sins and follies, but who, nevertheless, was an industrious scribe. When he came to die, the devil claimed his soul. The angels, however, brought before the Throne a great book of religious Instructions which he had illuminated, and for every letter therein, he received pardon for one sin. Behold! When the account was completed, there proved to be one letter over! the narrator adds naïvely, "And it was a very big book."

Perhaps more than any books executed in the better period, after the decline had begun, were the Books of Hours, containing the numerous daily devotions which form part of the ritual of the Roman Church. Every

well appointed lady was supposed to own a copy, and there is a little verse by Eustache Deschamps, a poet of the time of Charles V., in which a woman is supposed to be romancing about the various treasures she would like to possess. She says:

> "Hours of Our Lady should be mine,
> Fitting for a noble dame,
> Of lofty lineage and name;
> Wrought most cunningly and quaint,
> In gold and richest azure paint.
> Rare covering of cloth of gold
> Full daintily it shall enfold,
> Or, open to the view exposed,
> Two golden clasps to keep it closed."

John Skelton the poet did honour to the illuminated tomes of his day, in spite of the fact that the æsthetic deterioration had begun.

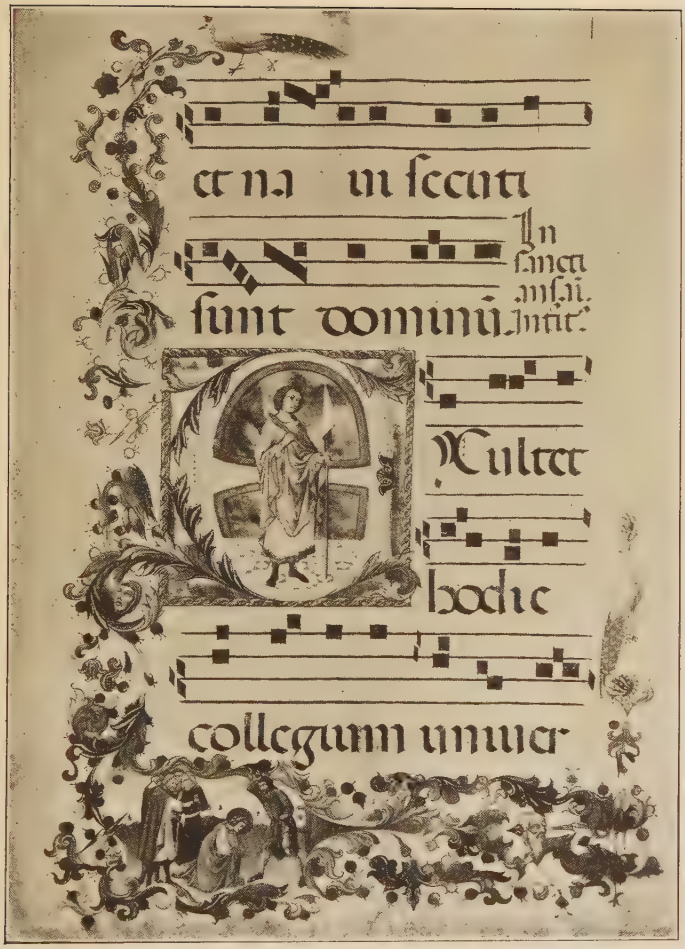
> "With that of the boke lozende were the clasps
> The margin was illumined all with golden railes,
> And bice empictured, with grasshoppers and waspes
> With butterflies and fresh peacock's tailes:
> Englosed with . . . pictures well touched and quickly,
> It wold have made a man hole that had be right sickly!"

But here we have an indication of that realism which rung the death knell of the art. The grasshoppers on a golden ground, and the introduction of carefully painted insect and floral life, led to all sorts of extravagances of taste.

But before this decadence, there was a very interesting period of transition, which may be studied to special

advantage in Italy, and is seen chiefly in the illuminations of the great choral books which were used in the choirs of churches. One book served for all the singers in those days, and it was placed upon an open lectern in the middle of the choir, so that all the singers could see it: it will be readily understood that the lettering had to be generous, and the page very large for this purpose. The decoration of these books took on the characteristics of breadth in keeping with their dimensions, and of large masses of ornament rather than delicate meander. The style of the Italian choral books is an art in itself.

The Books of Hours and Missals developed during the fifteenth and sixteenth centuries into positive art galleries, whole pages being occupied by paintings, the vellum being entirely hidden by the decoration. The art of illumination declined as the art of miniature painting progressed. The fact that the artist was decorating a page in a book was lost sight of in his ambition to paint a series of small pictures. The glint of burnished gold on the soft surface of the vellum was no longer considered elegant, and these more elaborate pictures often left not even a margin, so that the pictures might as well have been executed on paper and canvas and framed separately, for they do not suggest ornaments in a book after this change had taken place. Lettering is hardly introduced at all on the same page with the illustration, or, when it is, is placed in a little tablet which is simply part of the general scheme.



CHORAL BOOK, SIENA

Among the books in this later period I will refer specifically to two only, the Hours of Ann of Brittany, and the Grimani Breviary. The Hours of Ann of Brittany, illuminated by a famous French artist of the time of Louis XII., is reproduced in facsimile by Curmer, and is therefore available for consultation in most large libraries. It will repay any one who is interested in miniature art to examine this book, for the work is so excellent that it is almost like turning the leaves of the original. The Grimani Breviary, which was illuminated by Flemish artists of renown, was the property of Cardinal Grimani, and is now one of the treasures of the Library of St. Marc in Venice. It is impossible in a short space to comment to any adequate extent upon the work of such eminent artists as Jean Foucquet, Don Giulio Clovio, Sano di Pietro, and Liberale da Verona; they were technically at the head of their art, and yet, so far as taste in book decoration is to be considered, their work would be more satisfactory as framed miniatures than as marginal or paginal ornament.

Stippling was brought to its ultimate perfection by Don Giulio Clovio, but it is supposed to have been first practised by Antonio de Holanda.

One of Jehan Foucquet's assistants was Jehan Bourdichon. There is an interesting memorandum extant, relating to a piece of illumination which Bourdichon had accomplished. "To the said B. for having had written a book in parchment named the Papalist, the same illuminated in gold and azure and made in the

same nine rich Histories, and for getting it bound and covered, thirty crowns in gold."

At the time of the Renaissance there was a rage for "tiny books," miniature copies of famous works. M. Würtz possessed a copy of the Sonnets of Petrarch, written in italics, in brown ink, of which the length was one inch, and the breadth five-eighths of an inch, showing fifty lines on a page. The text is only visible through a glass. It is in Italian taste, with several miniatures, and is bound in gold filigree.

The value of illuminated books is enormous. An Elector of Bavaria once offered a town for a single book; but the monks had sufficient worldly wisdom to know that he could easily take the town again, and so declined the exchange!

With the introduction of printing, the art of illumination was doomed. The personal message from the scribe to the reader was merged in the more comprehensive message of the press to the public. It was no longer necessary to spend a year on a work that could be accomplished in a day; so the artists found themselves reduced to painting initial letters in printed books, sometimes on vellum, but more often on paper. This art still flourishes in many localities; but it is no more illumination, though it is often so designated, than photography is portrait painting. Both are useful in their departments and for their several purposes, but it is incorrect to confound them.

Once, while examining an old choral book, I was par-

DETAIL FROM AN ITALIAN CHORAL BOOK

ticularly struck with the matchless personal element which exists in a book which is made, as this was, by the hand, from the first stroke to the last. The first page showed a bold lettering, the sweep of the pen being firm and free. Animal vigour was demonstrated in the steady hand and the clear eye. The illuminations were daintily painted, and the sure touch of the little white line used to accentuate the colours, was noticeable. After several pages, the letters became less true and firm. The lines had a tendency to slant to the right; a weakness could be detected in the formerly strong man. Finally the writing grew positively shaky. The skill was lost.

Suddenly, on another page, came a change. A new hand had taken up the work — that of a novice. He had not the skill of the previous worker in his best days, but the indecision of his lines was that of inexperience, not of failing ability. Gradually he improved. His colours were clearer and ground more smoothly; his gold showed a more glassy surface. The book ended as it had begun, a virile work of art; but in the course of its making, one man had grown old, lost his skill, and died, and another had started in his immaturity, gained his education, and devoted his best years to this book.

The printing press stands for all that is progressive and desirable; modern life and thought hang upon this discovery. But in this glorious new birth there was sacrificed a certain indescribable charm which can never

be felt now except by a book lover as he turns the leaves of an ancient illuminated book. To him it is given to understand that pathetic appeal across the centuries.

THE END.

BIBLIOGRAPHY

Arts and Crafts Movement. O. L. Triggs.
Two Lectures. William Morris.
Decorative Arts. William Morris.
Treatises of Benvenuto Cellini.
Library of British Manufactories.
Gold and Silver. Wheatley.
Ye Olden Time. E. S. Holt.
Arts and Crafts Essays. Ed. by Morris.
Industrial Arts. Maskell.
Old English Silver. Cripps.
Spanish Arts. J. E. Riaño.
History of the Fine Arts. W. B. Scott.
Art Work in Gold and Silver. P. H. Delamotte.
Gold and Silver. J. H. Pollen.
Une Ville du Temps Jadis. M. E. Del Monte.
Industrial Arts. P. Burty.
Arts of the Middle Ages. Labarte.
Miscellanea Graphica. Fairholt.
Artist's Way of Working. R. Sturgis.
Jewellery. Cyril Davenport.
Enamels. Mrs. Nelson Dawson.
Precious Stones. Jones.
Ghiberti and Donatello. Leader Scott.
Iron Work. J. S. Gardner.
Guilds of Florence. E. Staley.
Armour in England. J. S. Gardner.
Foreign Armour in England. J. S. Gardner.
Cameos. Cyril Davenport.
Peter Vischer. Cecil Headlam.
St. Eloi and St. Bernward. Baring Gould; Lives of the Saints.
European Enamels. H. Cunynghame.
Intarsia and Marquetry. H. Jackson.

Pavement Masters of Siena. R. H. Cust.
Sculpture in Ivory. Digby Wyatt.
Ancient and Mediæval Ivories. Wm. Maskell.
Ivory Carvers of the Middle Ages. A. M. Cust.
Arts of the Middle Ages and Renaissance. P. Lacroix.
Ivories. A. Maskell.
Old English Embroidery. F. and H. Marshall.
The Bayeux Tapestry. F. R. Fowke.
History of Tapestry. W. G. Thomson.
La Broderie. L. de Farcy.
Textile Fabrics. Dr. Rock.
Needlework as Art. Lady Alford.
History of Needlework. Countess of Wilton.
Gilds; Their Origins, etc. C. Walford.
Tapestry. A. Champeaux.
Tapestry. J. Hayes.
Ornamental Metal Work. Digby Wyatt.
La Mosaïque. Gerspach.
The Master Mosaic Workers. G. Sand.
Revival of Sculpture. A. L. Frothingham.
History of Italian Sculpture. C. H. Perkins.
Art Applied to Industry. W. Burges.
Four Centuries of Art. Noel Humphreys.
Aratra Pentelici. Ruskin.
Seven Lamps of Architecture. Ruskin.
Val d'Arno. Ruskin.
Stones of Venice. Ruskin.
Lectures on Sculpture. Flaxman.
Brick and Marble. G. E. Street.
Sculpture in Wood. Williams.
Greek and Gothic. St. J. Tyrwhitt.
Westminster Abbey and Craftsmen. W. R. Lethaby.
Le Roi René. L. de la Marche.
English Mediæval Figure Sculpture. Prior and Gardner.
Churches of Paris. Sophia Beale.
Matthew Paris' Chronicle.
Crowns and Coronations. Jones.
Bell's Handbooks of Rouen, Chartres, Amiens, Wells, Salisbury and Lincoln.
History of Sculpture. D'Agincourt.
The Grotesque in Church Art. T. T. Wildridge.

Choir Stalls and Their Carving. Emma Phipson.
Memorials of Westminster Abbey. Dean Stanley.
Memorials of Canterbury. Dean Stanley.
Les Corporations des Arts et Metiers. Hubert Valeroux.
Finger Ring Lore. Jones.
Goldsmith's and Silversmith's Work. Nelson Dawson.
The Dark Ages. Maitland.
Rambles of an Archæologist. F. W. Fairholt.
History of Furniture. A. Jacquemart.
Embroidery. W. G. P. Townsend.
Le Livre des Metiers. Etienne Boileau.
Illuminated Manuscripts. J. H. Middleton.
Illuminated Manuscripts. Edward Quaile.
English Illuminated Manuscripts. Maunde Thompson.
Les Manuscrits et l'art de les Orner. Alphonse Labitte.
Les Manuscrits et la Miniature. L. de la Marche.
Primer of Illumination. Delamotte.
Primer of Illumination. Digby Wyatt.
Ancient Painting and Sculpture in England. J. Carter.
Vasari's Lives of the Painters. (Selected.)
Benvenuto Cellini — Autobiography.
Illuminated Manuscripts. O. Westwood.
Celtic Illuminative Art. S. F. H. Robinson.
Illuminated Manuscripts. Bradley.

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